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GCA Corp, Bedford, MA

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Office of Air Quality
Planning and Standards
Research Triangle Park NC 27711

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Volume IV: Documentation of Computer Programs to Generate Volume I Curves and Tables

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THIS REPORT DOCUMENTS THE COMPUTER PROGRAMS USED IN PREPARING THE TABLES AND CURVES USED IN VOLUME I OF THE CARBON MONOXIDE HOT SPOT GUIDELINES.

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by

Frank Benesh

GCA Corporation
GCA/Technology Division
Burlington Road
Bedford, Massachusetts 01730

Contract No. 68-02-2539

EPA Project Officer: George J. Schewe

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ABSTRACT

This report documents the computer programs used in preparing the tables and curves used in Volume I of the carbon monoxide hot spot guidelines.

PREFACE

This document is the fourth in a series comprising the Carbon Monoxide Hot Spot Guidelines. The purpose of this series is to provide state and local agencies with a relatively simple yet accurate procedure for assessing carbon monoxide hot spot potential on urban street networks. Included in the Hot Spot Guideline series are:

Volume I: Techniques

Volume II: Rationale

Volume III: Summary Workbook

Volume IV: Documentation of Computer Programs to Generate Volume I Curves and Tables

Volume V: Intersection-Midblock Model User's Manual

Volume VI: Modified ISMAP User's Manual

Volume VII: Example Applications at Waltham/Providence/Washington, D.C.

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SECTION 1

INTRODUCTION

In Volume I of this series, certain curves and tables for relating CO hot spots to traffic and meteorology are presented. Volume II of this series presents the underlying equations, assumptions and rationale for their derivation. This manual provides documentation on five computer programs which are used to prepare these curves and tables. The five computer programs are VEHEMI2, CORRECT1, HOTSPOT, SIGNAL, and NOSIGNAL. No attempt is made in this document to provide an accompanying technical discussion; the reader is instead referred to Volumes I and II as appropriate.

VEHEMI2 is used to estimate emission factors for the calendar year and scenario chosen for the screening curves and verification tables. Correction factors, derived from these emission factors, are used by HOTSPOT, SIGNAL, and NOSIGNAL.

CORRECT1 is used to prepare tables of factors that correct the emission factors used in hot spot verification for other than the scenario (i.e., year, cold starts, vehicle mix, etc.) input to SIGNAL and NOSIGNAL.

SIGNAL and NOSIGNAL are used to prepare the tables of queue lengths and excess emission rates used in hot spot verification.

HOTSPOT is used to generate data from which the hot spot screening curves may be constructed.

Through use of these programs, hot spot screening curves and verification tables may be generated for different conditions and assumptions than those assumed in the hot spot guidelines. This should be useful in preparing tables localized to a particular region (e.g., for a specific vehicle mix, assuming the implementation of Inspection/Maintenance, or for specific intersection configurations). The programs may also be used to generate new curves and tables reflecting any new revisions to the motor vehicle emission factors. HOTSPOT and CORRECT1 are especially useful in the indirect source guideline[5] procedures or in conducting indirect source reviews. HOTSPOT, with minor modification, can also be used to conduct a computerized hot spot screening of all intersections in a FHWA planning data file and to rank the intersections in order of severity of hot spot potential. These modifications, however, are not discussed in this document.

The remainder of this manual describes each program, the input format, and provides listings of the programs, input data files and output listings from sample executions. Related publications the readers should be familiar with are Volumes I and II of the Hot Spot Guidelines,[1,2] the Users Guide to MOBILE1,[3] and the Modal Analysis Exhaust Emission Model.[4] These documents discuss most of the technical aspects underlying the five programs.

SECTION 2

PROGRAM DESCRIPTIONS

VEHEMI2 (PTVEHEMI2)

VEHEMI2 is essentially the MOBILE1 program[3] with several changes in one subroutine to enable the program to calculate idle emission factors adjusted for cold and hot starts and temperature. MOBILE1 is a program developed by EPA to calculate the emission factor of a vehicle fleet depending on the composition of the fleet, its operating characteristics, and the calendar year and ambient temperature. Both idle and average driving cycle emission factors are calculated. However, the MOBILE1 program[3] only calculates idle emission factors for hot stabilized operation.

All of the changes to MOBILE1 were made in subroutine EFCALX, and are starred in columns 78 and 79 in the program listing. The significant change is that subroutine BIGEFX is called two additional times to compute two "R" correction factor arrays. Both calculations assume an average speed of 5 mph. R1 uses the specified cold and hot start and temperature values, while R2 assumes stabilized operation. The idle emission factor is then multiplied by the ratio of R1 and R2.

The remainder of the program is identical to MOBILE1, as is input and output as seen in Appendix A and Table 1.

CORRECT1 (PTCORRECT1)

This program is basically a main driving routine and VEHEMI2 is a subroutine. The subroutine, called SUP8, is called once to establish the emission factors for a scenario specified by the user. Then in DO loops constructed from input specified by user, SUP8 is called successively over a range of values of calendar years, speeds, cold starts, hot starts, and temperature. The emission factors from each call of SUP8 are divided by the base case emission scenario; the resulting ratio is printed in tabular form. Tables 12, 13, and 14 of Volume I are prepared in this fashion. Pages 30 through 32 of Volume II present the basis of these calculations.

Correction factors are computed for idle emissions for every run. Before printing the tables of correction factors, the emission factors for the base case scenarios are printed. Three tables of correction factors are then printed, one for each region. (If a correction factor table for only one region is desired, change the DO statement at card 95 to an assignment statement setting IREG to the desired index.) Due to limitations of page width,

the product of the number of speeds (including idle) and calendar years must not exceed 24. There is no limi on the number of cold starts, hot starts, and temperatures for which correction factors are computed.

SIGNAL

This program generates the tables of excess emissions and queue lengths for signalized intersections for use in the hot spot verification procedures. The formulae used are those described in Volume II of the Hot Spot Guidelines.[2]

Equations 1 through 7 of Volume II document the calculation of the queue lengths, equations 17 and 18 document the calculation of the emission rates.

The program first performs a queuing analysis of the intersection for all combinations of hourly lane volumes between 100 VPH and 1400 VPH on both the main and crossing street. The queuing analysis is then printed, showing first term queue length, second term queue length, total queue length, the ratio of second term queue length to the total queue, the average delay from the first term, the average delay from the second term, the total delay, the ratio of the second term delay to the total delay, the signal cycle length, the green phase length, the proportion of vehicles that stop, and the capacity under signalization, as described in Volume II. First and second term refer here to the queue and delay arising from, respectively, vehicles stopping at the intersection during the current cycle and vehicles that approached the intersection during previous cycles.

The excess emissions are then computed. Emission rates are calculated in subroutines EMIS and ESUM. The first time subroutine EMIS is called, input data are read and processed. The input data are the idle emission factors for the base year stabilized LDV fleet (same conditions as modal model) and for the desired scenario. These are obtained from executing VEHEMI2. The next input data are the total deterioration in the modal model emission estimates from the measurement point to a common base year, the modal model coefficients and the model year mix for the modal model model-year groupings.[4] The first two data items are identical to the corresponding data in the modal model. All of this input data is printed.

Each time subroutine EMIS is called, two card images are read specifying the speed, acceleration and emission correction factor for vehicles approaching and departing from the intersection. The LDV stabilized emission factors are calculated for those speed and acceleration conditions and are printed. The emission correction factors (obtained from executing VEHEMI2) are then applied and the emission rates are printed for the desired scenario. Returning to the main program, the table of emission rates for the specified speed-acceleration - correction factor conditions is computed and printed out.

The main program then calls EMIS to process another speed-acceleration-correction factor combination. Upon reaching an end of file on logical unit 5, the program returns to the main program, print a table of cruise emission rates, and stops.

NOSIGNAL

This program generates the tables of excess emission and queue lengths for unsignalized intersections for use in the hot spot verification procedure. The formulae used for the traffic calculations are equations 8 through 10 in Volume II of the Hot Spot Guidelines.

The structure of NOSIGNAL is very similar to SIGNAL with the following differences. The speed-acceleration-correction factor combinations are read at the beginning of the program. The program then loops through the entire queuing analysis and excess emission rate calculations for acceptable time gaps (equation 10 of Volume II) between vehicles on the uncontrolled approach for crossing vehicles on the controlled approach. The loop is between 3 and 10 seconds. The queuing analysis and excess emission rate tables are printed on each loop. The relevant value of the time gap can be identified on the output by which column the approach capacity is printed in the queuing analysis. At the end of the loop on time gap the cruise emission rate table is printed. In all other respects the program logic is identical to SIGNAL.

HOTSPOT

This program is used to generate sets of ordered pairs of ADT on main and crossing streets. Each set describes a hot spot screening curve.

The program first reads in 17 variables which specify certain assumptions used in creating the curves. Three of these variables are used to specify the size and accuracy of the curves. They are ISPACE, TOL, and SPACE. ISPACE and SPACE specify the computation interval along the x-axis (ADT on main street for intersections and lane capacity for free flow) for which the corresponding value on the y-axis (that will represent a potential hotspot) is computed. TOL is used to specify the accuracy (in mg/m^3) of the 1 hour CO concentration (excluding background) for a specific x-y pair. For example, with TOL equal to 0.05 mg/m^3 and a certain ADT on the main street, the ADT on the crossing street will be computed by the program so that the resulting 1 hour CO concentration is within 0.05 mg/m^3 of the concentration representing a potential hotspot. The other 14 variables, described in Table 5, specify various constants used in the calculation of the screening curves.

After reading the initial assumptions, the program reads a list of speeds that will be used in the program and assigns an index number to each speed according to its order of input. If the screening curves for midblock locations are to be computed, the first 13 values of speed must correspond to the speed for the volume-capacity ratios listed on the following page. (Refer to page 42 of Volume II of the Hot Spot Guidelines.)

	Volume/capacity	Order of input of speeds
Limited Access	0 to 0.19	1
	0.20 to 0.29	2
	0.30 to 0.39	3
	0.40 to 0.49	4
	0.50 to 0.59	5
	0.60 to 0.69	6
	0.70 to 0.79	7
	0.80 to 0.89	8
	0.90 to 0.99	9
	1.0+	10
Arterial	0 to 0.69	10
	0.70 to 0.79	11
	0.80 to 0.89	12
	0.90+	13

The program then calculates a corrected emission rate for each value of speed by calling subroutine EMIS. The first time EMIS is called the idle emission factors and modal model deterioriation, coefficients, and model year mix are read.

The program then reads two cards describing a hot spot location. For every increment in the x-axis (specified by SPACE or ISPACE) the program computes successively more refined estimates of the y-axis ADT until the resulting concentration is within the specified tolerance (TOL) of the standard (after subtracting background). This procedure is then repeated for the x-axis value that is SPACE or ISPACE larger until the curve intercepts the x-axis. The ordered pairs describing the screening curve is then printed along with supplemental information for each point.

The program then returns to read another set of two cards describing the next hot spot location. At the end of file condition on unit 5, the program stops.

Apart from subroutines EMIS and ESUM, the other subroutines perform calculations identical to the curves used in the hot spot verification procedure. Subroutine XQFREE calculates the normalized CO concentration contribution for free flow, which corresponds to Figure 33 of Volume I. Subroutine VC estimates the speed of traffic on an arterial or freeway by looking up the speed specified by the user which corresponds to the calculated volume/capacity ratio. Subroutine QUEUE calculates the queue lengths and delay for intersections using the procedure described in pages 23 to 26 of Volume II. Subroutine XC corresponds to Figures 31, 32, and 34 of Volume I. Subroutine DIST corresponds to Figures 36 and 37.

SECTION 3

INPUT DESCRIPTION

VEHEMI2

The format for input data to VEHEMI2 is identical to MOBILE1. Table 1 presents the basic input format of MOBILE1 as applied in this analysis. For a more complete treatment of the various input formats, refer to reference 3.

CORRECT1

As shown in Table 2, the input to CORRECT consists of eight cards which can be divided into three logical segments. The first group of four cards describe the base case scenario. The variable names and their meaning are identical to the input data to MOBILE1. If ALHFLG, TRKFLG, or IMFLG are set equal to zero, the remainder of the card may be left blank.

The second group consists of one card which is used to specify the size and range of the table. Three integer numbers are required for the last two digits of the calendar year, hot starts, cold starts, temperature, and speed. The three numbers specify the beginning, ending, and incremental values for the table of emission correction factors. For example, if I1YR, I2YR, and I3YR are input as, respectively, 78, 82, 2; emission correction factors will be computed for calendar years 1978, 1980, and 1982.

The third group of three cards are identical in format to the 2nd, 3rd, and 4th cards. They are used to specify certain conditions for the correction factors in the table which are held constant throughout the table. For example, the 8th card describes the information on an I/M program. The conditions of that I/M program would apply to the numerator of each correction factor in the table.

SIGNAL

The format of the input data is described in Table 3.

NOSIGNAL

The format of the input data is described in Table 4.

HOTSPOT

The format of the input data is described in Table 5.

TABLE 1. BASIC INPUT FORMAT TO VEHEMI2 (MOBILE1)

Record No.	Var. name	Description	Format	Comments
		Flags controlling input and execution		
1	IPROMT	Flag for prompting of input	I1	0 - Program does not prompt for input. 1 - Program prompts for input.
2	PROJID	80-characters for output header	20A4	
3	INFLAG	Chooses type of Fortran READ	I1	0 - List-directed READ 1 - Formatted READ
4	SP3FLG	Flags optional use of 3 input speeds per loop.	I1	0 - 1 input speed per loop. 1 - 3 input speeds per loop.
5	VMFLG	Flags optional use of user VMT mix.	I1	0 - Use default national mix. 1 - User supplies VMT mix for each scenario. 2 - User supplies one VMT mix for all scenarios.
6	MYMRFG	Flag for optional input of user registration and/or mileage accrual distributions.	I1	0 - Use default regist. and mileage accum. distributions. 1 - User supplies mileage dist. 2 - User supplies regist. dist. 3 - User supplies both dist.
7	ALTFLG	Flag for optional modification of model year emission factors.	I1	0 - Use default factors. 1 - User modifies factors.
8	IMFLG	Include impact of insp./maint. program in calculations.	I1	0 - No I/M program. 1 - Include I/M
9	ALHFLG	Flags optional use of 4 special LDV correction factors: (a) air-conditioning; (b) vehicle loading; (c) trailer towing; (d) humidity (NO_x only).	I1	0 - 4 factors not included. 1 - 4 factors are included.
10	TRKFLG	Flags optional use of HDV power/weight correction factor.	I1	0 - Do not use HDV factor. 1 - Use HDV factor
11	IFORM	Selects one of two forms of formatted output.	I1	0 - Numeric format 1 - Descriptive format
12	PRTFLG	Selects which factors are included in output.	I1	0 - HC, CO, NO_x 1 - HC only 2 - CO only 3 - NO_x only
13	ICEVFG	Controls listing of evap. HC factors in addition to total HC factors.	I1	0 - No evap. factors 1 - Output evap.
14	IDLFLG	Controls output of idle factors	I1	0 - No idle output. 1 - Output idle factor
15	NMHFLG	Selects total or nonmethane HC	I1	0 - Total HC 1 - Nonmethane HC
16	UNFFLG	Flags optional output of unformatted data set.	I1	0 - No unformatted output. 1 - Output unformatted

(continued)

TABLE 1 (continued)

Flags controlling input and execution				
Record No.	Var. name	Description	Format	Comments
17	IREJN	Specifies for which of 3 regions emission factors are to be computed.	I1	1 - Low altitude 2 - California 3 - High altitude
	CY	Last 2 digits of calendar year for which emissions are to be calculated.	I3	$70 \leq CY \leq 99$
	SP1	The single average route speed for link or area for which factors are being calculated.	F5.1	$0 < SP1 \leq 60$ mph
		OR		
	SPD	The three average bag speeds for link or area for which factors are being calculated.	1X, 3F5.1	$0 < SPD \leq 60$ mph
	TEMP	Ambient temperature (Fahrenheit)	F5.1	$0^{o} \leq TEMP \leq 110^{o}$
	PCCO	% of noncatalyst-equipped LDV VMT accumulated in cold start mode.	F5.0	$0 \leq PCCO \leq 100.$
	PCHS	% of catalyst-equipped LDV VMT accumulated in hot start mode.	F5.0	$0 \leq PCHS \leq 100.$
	PCCC	% of catalyst-equipped LDV VMT accumulated in cold start mode.	F5.0	$0 \leq PCCC \leq 100.$
18	MS(1)	Fraction of VMT by LDV	F4.3	$0 \leq MS \leq 1$
	MS(2)	Fraction of VMT by LDT1	F4.3	$0 \leq MS \leq 1$
	MS(3)	Fraction of VMT by LDT2	F4.3	$0 \leq MS \leq 1$
	MS(4)	Fraction of VMT by HDV-G	F4.3	$0 \leq MS \leq 1$
	MS(5)	Fraction of VMT by HDV-D	F4.3	$0 \leq MS \leq 1$
	MS(6)	Fraction of VMT by MC	F4.3	$0 \leq MS \leq 1$

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TABLE 2. INPUT FORMAT FOR CORRECT

Card	Column	Format	Name	Comments
1*	1 - 2	I2	IREJN	1 = low altitude, 2 = California, 3 = high altitude
	3 - 5	I3	CY	Last two digits of calendar year
	6 - 10	F5.1	TEMP	Ambient temperature, °F
	11 - 15	F5.1	PCCO	Percent of noncatalyst vehicles in cold mode
	16 - 20	F5.1	PCHS	Percent of vehicles in hot mode
	21 - 25	F5.1	PCCC	Percent of catalyst vehicles in cold mode
	26 - 30	F5.3	MS (1)	Proportion of VMT that is LDV
	31 - 35	F5.3	MS (2)	Proportion of VMT that is LDT-1
	36 - 40	F5.3	MS (3)	Proportion of VMT that is LDT-2
	41 - 45	F5.3	MS (4)	Proportion of VMT that is HDV-G
	46 - 50	F5.3	MS (5)	Proportion of VMT that is HDV-D
	51 - 55	F5.3	MS (6)	Proportion of VMT that is MC
2*	1 - 2	I2	ALHFLG	Flag for optional LDV corrections; 1 = yes, 0 = no
	6 - 15	F10.0	AC	Proportion of LDV using air-conditioning
	16 - 25	F10.0	XLOAD (1)	Proportion of LDV with additional 500 lb load
	26 - 35	F10.0	XLOAD (2)	Proportion of LDT1 with additional 500 lb load
	36 - 45	F10.0	XLOAD (3)	Proportion of LDT2 with additional 500 lb load
	46 - 55	F10.0	TRAILR	Proportion of LDV towing a trailer
	56 - 65	F10.0	ABSHUM	Ambient absolute humidity
3*	1 - 2	I2	TRKFLG	Flag for optional HDV corrections; 1 = yes, 0 = no
	6 - 15	F10.0	HGWGT	Average GVW of HDV-G
	16 - 25	F10.0	HDWGT	Average GVW of HDV-D
	26 - 35	F10.0	HGCID	Average displacement of HDV-G, in.^{3}
	36 - 45	F10.0	HDCID	Average displacement of HDV-D, in.^{3}
4*	1 - 2	I2	IMFLG	Flag for optional I/M corrections; 1 = yes, 0 = no
	6 - 10	I5	ICYIM	Year of I/M implementation, last two digits
	11 - 15	I5	ISTRIN	Stringency of I/M
	16 - 20	I5	IMTFLG	Flag for mechanic's training, 1 = yes, 0 = no
	21 - 25	I5	MODYR1	Earliest model year included in I/M, two digits
	26 - 30	I5	MODYR2	Latest model year included in I/M, two digits
5	1 - 5	I5	I1YR	first, last, and increment in calendar year, last two digits
	6 - 10	I5	I2YR	
	11 - 15	I5	I3YR	
	16 - 20	I5	I1HOT	first, last, and increment in hot start proportions
	21 - 25	I5	I2HOT	
	26 - 30	I5	I3HOT	
	31 - 35	I5	I1COLD	first, last, and increment in cold start proportions
	36 - 40	I5	I2COLD	
	41 - 45	I5	I3COLD	
	46 - 50	I5	I1TEMP	first, last, and increment in temperature, °F
	51 - 55	I5	I2TEMP	
	56 - 60	I5	I3TEMP	
	61 - 65	I5	I1SPEED	first, last, and increment in speed, m/hr
	66 - 70	I5	I2SPEED	
	71 - 75	I5	I3SPEED	
6,7,8		(repeat cards 2, 3, and 4 for scenario in tables)		

*CARDS 1, 2, 3 AND 4 DESCRIBE THE BASE CASE SCENARIO. THE MEANING OF EACH VARIABLE AND UNITS ARE IDENTICAL TO MOBILE 1.

TABLE 3. INPUT FORMAT FOR SIGNAL

Card	Columns	Format	Name	Value limits	Units	Comments
1	1 - 5	I5	NPHASE	= 2		Number of phases
2	1 - 10	F10.5	IDL77		g veh-sec^{-1}	Idle emission factor, 1977 composite
	11 - 20	F10.5	IDLFTR		g veh-sec^{-1}	Idle emission factor, desired scenario
3	1 - 10	F10.0	DETER (1, 1)		g veh-sec^{-1}	Model year group 1 deterioration factor, HC
	11 - 20	F10.0	DETER (1, 2)			Model year group 1 deterioration factor, CO
	21 - 30	F10.0	DETER (1, 3)			Model year group 1 deterioration factor, CO_2
	31 - 40	F10.0	DETER (1, 4)			Model year group 1 deterioration factor, NO_x
			(repeat card 3 for 18 model year groupings plus 2 years 1976 and 1977)			
4	11 - 25	E15.8	COEF (1, 1, 1)			Modal model coefficients
	26 - 40	E15.8	COEF (1, 1, 2)			
	41 - 55	E15.8	COEF (1, 1, 3)			
	56 - 70	E15.8	COEF (1, 1, 4)			
			(repeat twice for coefficients 5 - 12)			
			(repeat all three cards for all four pollutants)			
			(repeat all twelve cards for all eighteen model year group)			
5	1 - 5	F5.0	DEC (1)	0 - 1		Model year mix - proportion of VMT by each model year group
	6 - 10	F5.0	DEC (2)	0 - 1		
	46 - 50	F5.0	DEC (10)	0 - 1		
			(repeat card for model year groups 11 through 20)			
6	1 - 5	F5.2	V		m hr^{-1}	Speed into intersection, initial
	6 - 10	F5.2	A	< 0	m hr-sec^{-1}	Deceleration
	11 - 20	F10.0	FACTOR			Emission correction factor
7	1 - 5	F5.2	V		m hr^{-1}	Speed out of intersection, terminal
	6 - 10	F5.2	A	> 0	m hr-sec^{-1}	Acceleration
	11 - 20	F10.0	FACTOR			Emission correction factor
			(repeat cards 6 and 7 for every speed desired)			

TABLE 4. INPUT FORMAT FOR NOSIGNAL

Card	Columns	Format	Name	Value limits	Units	Comments
1	1 - 5	I5	NPHASE	= 2		Number of phases
	6 - 10	I5	NSPEED	0		Number of tables
2	1 - 5	F5.2	VEL (1)	0	m hr^{-1}	Terminal speed
	6 - 10	F5.2	ACC (1)	0	m $hr\text{-}sec^{-1}$	Acceleration
	11 - 20	F10.0	FACTOR (1)			Correction factor at speed
3	1 - 5	F5.2	VEL (2)	0	m hr^{-1}	Approach speed
	6 - 10	F5.2	ACC (2)	0	m $hr\text{-}sec^{-1}$	Deceleration
	11 - 20	F10.0	FACTOR (2)			Correction factor at speed
			(repeat cards 2 and 3 for each table; i.e. NSPEED)			
4	1 - 10	F10.5	IDL77		g $veh\text{-}sec^{-1}$	Idle emission factor, 1977 composite
	11 - 20	F10.5	IDLFTR		g $veh\text{-}sec^{-1}$	Idle emission factor, desired scenario
5	1 - 10	F10.0	DETER (1, 1)		g $veh\text{-}sec^{-1}$	Model year group 1 deterioration factor, HC
	11 - 20	F10.0	DETER (1, 2)			Model year group 1 deterioration factor, CO
	21 - 30	F10.0	DETER (1, 3)			Model year group 1 deterioration factor, CO_2
	31 - 40	F10.0	DETER (1, 4)			Model year group 1 deterioration factor, NO_x
			(repeat card 5 for 18 model year groupings plus 2 years 1976 and 1977)			
6	11 - 25	E15.8	COEF (1, 1, 1)			Modal Model coefficients
	26 - 40	E15.8	COEF (1, 1, 2)			
	41 - 55	E15.8	COEF (1, 1, 3)			
	56 - 70	E15.8	COEF (1, 1, 4)			
			(repeat twice for coefficients 5 - 12)			
			(repeat all three cards for all four pollutants)			
			(repeat all twelve cards for all eighteen model year groups)			
7	1 - 5	F5.0	DEC (1)	0 - 1		Model year mix - proportion of VMT by each model year group
	6 - 10	F5.0	DEC (2)	0 - 1		
	46 - 50	F5.0	DEC (10)	0 - 1		
			(repeat card 7 for model year groups 11 through 20)			

TABLE 5. INPUT FORMAT FOR HOTSPOT

Card	Columns	Format	Name	Value limits	Units	Comment
1	1 - 10	F10.5	XT8HR	>0	mg m^{-3}	Desired 8 hr concentration
	11 - 20	F10.5	XB8HR	≥0	mg m^{-3}	8 hr background
	21 - 30	F10.5	R8TO1	>0		Ratio of 8 hr to 1 hr concentration
	31 - 40	F10.5	QMIN	>0	m	Minimum queue length
	41 - 50	F10.5	ACC	>0	mile $hr\text{-}sec^{-1}$	Acceleration rate
	51 - 60	F10.5	DEC	<0	mile $hr\text{-}sec^{-1}$	Deceleration rate
	61 - 63	I3	NSPEED	>0		Number of speeds on card type 4
	64 - 70	I7	ISPACE	>0	ADT	Computation interval, free flow tables
2	1 - 10	F10.5	TOL	>0	mg m^{-3}	Accuracy of tables
	11 - 20	F10.5	SPACE	>0	ADT	Computation interval, intersections
	21 - 30	F10.5	PEAK	>0		1 hour over 24 hour ADT
	31 - 40	F10.5	GMIN	>0	sec	Minimum green time
	41 - 50	F10.5	CYMIN	>0	sec	Minimum cycle time
	51 - 60	F10.5	CYMAX	GYMIN	sec	Maximum cycle time
	61 - 70	F10.5	GAP	>0	sec	Gap acceptence time
3	1 - 10	F10.5	C1	>0	veh hr^{-1}	Lane capacity, approaches 1 and 2
	11 - 20	F10.5	C2	>0	veh hr^{-1}	Lane capacity, approaches 3 and 4
4	1 - 10	F10.5	SPEED (1)	>0	mile hr^{-1}	Speed
	11 - 20	F10.5	FACTOR (1)	>0		Emission correction factor at speed
	(repeat card 4 for each speed to be employed)					
5	1 - 10	F10.0	IDL77	>0	g sec^{-1}	Idle emission factor, 1977 stable
	11 - 20	F10.0	IDLFTR	>0	g sec^{-1}	Idle emission factor, desired scenario
6	1 - 10	F10.0	DETER (1, 1)	>0		HC deterioration, model group 1
	11 - 20	F10.0	DETER (1, 2)	>0		CO deterioration, model group 1
	21 - 30	F10.0	DETER (1, 3)	>0		CO_2 deterioration, model group 1
	31 - 40	F10.0	DETER (1, 4)	>0		NO_x deterioration, model group 1
	(repeat card 6 for model year groups 2 through 20; i.e., 19 = 1976, 20 = 1977)					
7	11 - 20	E15.8	COEF (1, 1, 1)			Coefficient 1, for model group 1, for HC
	21 - 30	E15.8	COEF (1, 1, 2)			Coefficient 2, for model group 1, for HC
	31 - 40	E15.8	COEF (1, 1, 3)			Coefficient 3, for model group 1, for HC
	41 - 50	E15.8	COEF (1, 1, 4)			Coefficient 4, for model group 1, for HC
	(repeat card 7 216 times for 18 model year groups, 4 pollutants, 12 coefficients)					
8	1 - 5	F5.0	DEC (1)	≥0		Vehicle mix proportion, model group 1
	6 - 10	F5.0	DEC (2)	≥0		Vehicle mix proportion, model group 1
	⋮	⋮	⋮			
	46 - 50	F5.0	DEC (10)	≥0		Vehicle mix proportion, model group 10
	(repeat card 8 for model year groups 11 - 20)					

(continued)

TABLE 5 (continued)

Card	Columns	Format	Name	Value limits	Units	Comment
A	1 - 80	20A4	ANAME			LABEL OF INTERSECTION DESCRIBED ON "B" CARD
B	1 - 6	I6	ISIG	0, 1, 3, 4		0 = no signal, 1 = signal, 3 = arterial free flow, 4 = limited access free flow
	7 - 12	I6	IS	NSPEED		Speed index (input order of speed)
	13 - 18	I6	N (1)			Number of lanes in each approach
	14 - 24	F6.0	N (2)			
	25 - 30	F6.0	N (3)			
	31 - 36	F6.0	N (4)			
	37 - 42	F6.0	X (1)	> 0	m	Roadway receptor distance, approach 1 and 2
	43 - 48	F6.0	X (2)	> 0	m	
	49 - 54	F6.0	DSPLIT (1)	≥0, ≤1		Direction split of VMT for each approach
	55 - 60	F6.0	DSPLIT (2)	≥0, ≤1		
	61 - 66	F6.0	DSPLIT (3)	≥0, ≤1		
	67 - 72	F6.0	DSPLIT (4)	≥0, ≤1		
(repeat A and B for each screening curve desired)						

REFERENCES

1. Guidelines for the Identification and Evaluation of Localized Violations of the Carbon Monoxide Standards, Volume I: Techniques and Workbook. U.S. Environmental Protection Agency, EPA-450/3-78-033, 1978.

2. Guidelines for the Identification and Evaluation of Localized Violations of the Carbon Monoxide Standards, Volume II: Rationale. U.S. Environmental Protection Agency, EPA-450/3-78-034, 1978.

3. Guthman, Lewis. User's Guide to MOBILE1, Office of Transportation and Land Use Policy, U.S. Environmental Protection Agency, 1978.

4. Modal Analysis Exhaust Emission Model, U.S. Environmental Protection Agency, EPA-460/3-74-065. January 1974 with 1977 revision.

5. Guidelines for Air Quality Maintenance Planning and Analysis, Volume 9 (Revised): Evaluating Indirect Sources. EPA-450/4-78-001. Sept. 1978.

APPENDIX A

VEHEMI2 (PTVEHEMI2)*

VEHEMI2 was run three times for each speed required for HOTSPOT, once each for calendar years 1977, 1982, and 1983. The composite emission factors for 1982 and 1983 (20 percent cold starts, 10 percent hot starts, 30°F) were averaged and divided by the 1977 LDV hot stabilized emission factor. This quotient is the correction factor supplied to HOTSPOT. In addition, the average 1982-1983 idle composite emission factor and the 1977 LDV hot stabilized emission factor is used for input into HOTSPOT, SIGNAL, and NOSIGNAL. As previously described, the output is identical to MOBILE1.

*The sample executions contained herein are those that were used to generate the tables and screening curves in Volume I of the Hot Spot Guidelines.[1]

```
C**********************************************************************CMAI00010
C                                                                      CMAI00020
C                                                                      CMAI00030
C                                                                      CMAI00040
C                                                                      CMAI00050
C                                                                      CMAI00060
C            MOBILE1: MOBILE SOURCE EMISSIONS MODEL                    CMAI00070
C                                                                      CMAI00080
C                                                                      CMAI00090
C                                                                      CMAI00100
C                                                                      CMAI00110
C              UNITED STATES ENVIRONMENTAL PROTECTION AGENCY           CMAI00120
C                                                                      CMAI00130
C              OFFICE OF AIR AND WASTE MANAGEMENT                      CMAI00140
C              OFFICE OF TRANSPORTATION AND LAND USE POLICY            CMAI00150
C              401 M STREET, S.W.                                      CMAI00160
C              WASHINGTON, D.C.  20460                                 CMAI00170
C                                                                      CMAI00180
C              TELEPHONE: 202-755-0603                                 CMAI00190
C                         202-755-0570                                 CMAI00200
C                                                                      CMAI00210
C**********************************************************************CMAI00220
C                                                                      CMAI00230
C       DESIGNED AND WRITTEN BY LEWIS E. GUTHMAN                       CMAI00240
C                                                                      CMAI00250
C       JANUARY, 1978                                                  CMAI00260
C                                                                      CMAI00270
C**********************************************************************CMAI00280
C                                                                       MAI00290
C                                                                       MAI00300
C                                                                       MAI00310
C** MAIN: MAIN ROUTINE FOR CALCULATING MOBILE SOURCE EMISSION FACTORS     MAI00320
C                                                                       MAI00330
C                                                                       MAI00340
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IRDFLG,SP3FLG,NMHFLG,IDLFLG,   MAI00350
     *              UNFFLG,MYMRFG,IMFLG,ICEVFG,PRTFLG,IFORM            MAI00360
      COMMON/REGCOM/IREJN                                               MAI00370
      COMMON/LNKCOM/SPD,TEMP,PCCO,PCHS,PCCC,MS                          MAI00380
      COMMON/ALTCOM/INTALT(5,100),R4ALT(2,100),MODFLG(100),NEWFAC       MAI00390
C                                                                       MAI00400
      INTEGER ALHFLG,TRKFLG,ALTFLG,ALTKOD(4,20),CY,SP3FLG,UNFFLG,
```

```
      *     PRTFLG
       REAL EFRETM(3,6),WTEDEF(7),LNKDTA(7),SPD(3),MS(6),COMCCC(6)        MAI00410
       REAL IDLRTM(3,6),IDLWTD(3)                                         MAI00420
C                                                                         MAI00430
       EQUIVALENCE (SPD(1),LNKDTA(1))                                     MAI00440
       DATA IRJOLD/0/                                                     MAI00450
       DATA INITFL/1/                                                     MAI00460
C                                                                         MAI00470
C**********************************************************************  MAI00480
C                                                                         MAI00490
       CALL INPUT(INITFL,CY,ICYPR)                                        MAI00500
C                                                                         MAI00510
C**********************************************************************  MAI00520
C                                                                         MAI00530
100    CONTINUE                                                           MAI00540
C                                                                         MAI00550
       INITFL=0                                                           MAI00560
C                                                                         MAI00570
       CALL INPUT(INITFL,CY,ICYPR)                                        MAI00580
C                                                                         MAI00590
       IF(IRDFLG.EQ.0) GO TO 99                                           MAI00600
C                                                                         MAI00610
       IF(IREJN.NE.IRJOLD) CALL INITEX                                    MAI00620
       IF(IREJN.NE.IRJOLD.AND.IMFLG.GT.0) CALL LDVIMX                     MAI00630
C                                                                         MAI00640
       IRJOLD = IREJN                                                     MAI00650
C                                                                         MAI00660
       CALL EFCALX(CY,LNKDTA,MS,EFRETM,WTEDEF,COMCCC,IDLRTM,IDLWTD)       MAI00670
C                                                                         MAI00680
       CALL OUTPUT(ICYPR,EFRETM,WTEDEF,COMCCC,IDLRTM,IDLWTD)              MAI00690
C                                                                         MAI00700
       GO TO 100                                                          MAI00710
C                                                                         MAI00720
C**********************************************************************  MAI00730
C                                                                         MAI00740
99     CONTINUE                                                           MAI00750
C                                                                         MAI00760
C      DEBUG SUBCHK                                                       MAI00770
       STOP                                                               MAI00780
                                                                          MAI00790
                                                                          MAI00800
```

```
      END
```

```
      SUBROUTINE INPUT(INITFL,CY,ICYPR)                                  INP00010
C                                                                        INP00020
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IRDFLG,SP3FLG,NMHFLG,IDLFLG,    INP00030
     *              UNFFLG,MYMRFG,IMFLG,ICEVFG,PRTFLG,IFORM              INP00040
      COMMON/REGCOM/IREJN                                                INP00050
      COMMON/LNKCOM/SPD,TEMP,PCCO,PCHS,PCCC,VMTMIX                       INP00060
      COMMON/ALTCOM/INTALT(5,100),R4ALT(2,100),MODFLG(100),NEWFAC        INP00070
      COMMON/MYMCOM/MYM,MYR,TF                                           INP00080
      COMMON/JUNK1/AC,XLOAD,TRAILR,ABSHUM                                INP00090
      COMMON/JUNK2/HGWGT,HDWGT,HGCID,HDCID                               INP00100
      COMMON/PROJCM/PROJID                                               INP00110
      COMMON/IMCOM/ICYIM,ISTRIN,IMTFLG,MODYR1,MODYR2                     INP00120
      COMMON/SP1COM/SP1,SPAV                                             INP00130
C                                                                        INP00140
      INTEGER ALHFLG,TRKFLG,ALTFLG,ALTKOD(4,20),CY,VMFLAG,SP3FLG,        INP00150
     *        NMHFLG,IDLFLG,UNFFLG,PRTFLG                                INP00160
      REAL XLOAD(3),SPD(3),VMTMIX(6),MYM(20,6),MYR(20,6),TF(20,6)        INP00170
      REAL LNKDTA(7),PROJID(20)                                          INP00180
      EQUIVALENCE (SPD(1),LNKDTA(1))                                     INP00190
C     DATA VMTMIX/.803,.058,.058,.045,.031,.005/                         INP00200
      DATA IREAD,IWRI/5,6/                                               INP00210
C                                                                        INP00220
C**********************************************************************INP00230
C**SKIP THIS STUFF EXCEPT DURING FIRST SUBR. CALL                        INP00240
      IF(INITFL.EQ.0) GO TO 500                                          INP00250
C**READ IN PROJID,FLAGS, AND MYM-MYR                                     INP00260
C                                                                        INP00270
      READ(IREAD,701) IPROMT                                             INP00280
C                                                                        INP00290
      IF(IPROMT.EQ.1) WRITE(IWRI,752)                                    INP00300
752   FORMAT('0ENTER PROJECT ID:')                                       INP00310
      READ(IREAD,700) PROJID                                             INP00320
700   FORMAT(20A4)                                                       INP00330
      IF(IPROMT.EQ.1) WRITE(IWRI,763)                                    INP00340
      READ(IREAD,701) INFLAG                                             INP00350
      IF(IPROMT.EQ.1) WRITE(IWRI,757)                                    INP00360
      READ(IREAD,701) SP3FLG                                             INP00370
      IF(IPROMT.EQ.1) WRITE(IWRI,753)                                    INP00380
      READ(IREAD,701) VMFLAG                                             INP00390
      IF(IPROMT.EQ.1) WRITE(IWRI,761)                                    INP00400
```

```
      READ(IREAD,701) MYMRFG                                          INP00410
      IF(IPROMT.EQ.1) WRITE(IWRI,754)                                 INP00420
      READ(IREAD,701) ALTFLG                                          INP00430
      IF(IPROMT.EQ.1) WRITE(IWRI,762)                                 INP00440
      READ(IREAD,701) IMFLG                                           INP00450
      IF(IPROMT.EQ.1) WRITE(IWRI,755)                                 INP00460
      READ(IREAD,701) ALHFLG                                          INP00470
      IF(IPROMT.EQ.1) WRITE(IWRI,756)                                 INP00480
      READ(IREAD,701) TRKFLG                                          INP00490
      IF(IPROMT.EQ.1) WRITE(IWRI,766)                                 INP00500
      READ(IREAD,701) IFORM                                           INP00510
      IF(IPROMT.EQ.1) WRITE(IWRI,765)                                 INP00520
      READ(IREAD,701) PRTFLG                                          INP00530
      IF(IPROMT.EQ.1) WRITE(IWRI,764)                                 INP00540
      READ(IREAD,701) ICEVFG                                          INP00550
      IF(IPROMT.EQ.1) WRITE(IWRI,759)                                 INP00560
      READ(IREAD,701) IDLFLG                                          INP00570
      IF(IPROMT.EQ.1) WRITE(IWRI,758)                                 INP00580
      READ(IREAD,701) NMHFLG                                          INP00590
      IF(IPROMT.EQ.1) WRITE(IWRI,760)                                 INP00600
      READ(IREAD,701) UNFFLG                                          INP00610
C                                                                     INP00620
701   FORMAT(I1)                                                      INP00630
753   FORMAT(' ENTER VMFLAG:')                                        INP00640
754   FORMAT(' ENTER ALTFLG:')                                        INP00650
755   FORMAT(' ENTER ALHFLG:')                                        INP00660
756   FORMAT(' ENTER TRKFLG:')                                        INP00670
757   FORMAT(' ENTER SP3FLG:')                                        INP00680
758   FORMAT(' ENTER NMHFLG:')                                        INP00690
759   FORMAT(' ENTER IDLFLG:')                                        INP00700
760   FORMAT(' ENTER UNFFLG:')                                        INP00710
761   FORMAT(' ENTER MYMRFG:')                                        INP00720
762   FORMAT(' ENTER IMFLG:')                                         INP00730
763   FORMAT(' ENTER INFLAG:')                                        INP00740
764   FORMAT(' ENTER ICEVFG:')                                        INP00750
765   FORMAT(' ENTER PRTFLG:')                                        INP00760
766   FORMAT(' ENTER IFORM:')                                         INP00770
888   FORMAT()                                                        INP00780
C                                                                     INP00790
      IF(VMFLAG.EQ.2.AND.IPROMT.EQ.1) WRITE(IWRI,769)                 INP00800
```

```
      IF(VMFLAG.EQ.2.AND.INFLAG.EQ.0) READ(IREAD,898) VMTMIX          INP00810
      IF(VMFLAG.EQ.2.AND.INFLAG.EQ.1) READ(IREAD,726) VMTMIX          INP00820
C                                                                     INP00830
      IF(MYMRFG.EQ.1.OR.MYMRFG.EQ.3) READ(IREAD,710) MYM              INP00840
      IF(MYMRFG.EQ.2.OR.MYMRFG.EQ.3) READ(IREAD,710) MYR              INP00850
710   FORMAT(10F5.3)                                                  INP00860
C                                                                     INP00870
C**HERE READ IN E.F. MODIFICATION DATA                                INP00880
      IF(ALTFLG.NE.1) GO TO 810                                       INP00890
      IF(IPROMT.EQ.1) WRITE(IWRI,790)                                 INP00900
790   FORMAT('0ENTER NO. OF NEW E.F. INTERCEPT/SLOPE PAIRS (I2)')     INP00910
      IF(INFLAG.EQ.0) READ(IREAD,898) NEWFAC                          INP00920
      IF(INFLAG.EQ.1) READ(IREAD,791) NEWFAC                          INP00930
791   FORMAT(I2)                                                      INP00940
C                                                                     INP00950
      DO 800 IFAC = 1,NEWFAC                                          INP00960
C                                                                     INP00970
      IF(IPROMT.EQ.1) WRITE(IWRI,792)                                 INP00980
792   FORMAT(' ENTER REGION,VEH. TYPE,POLLUTANT,FIRST MY,',           INP00990
     * /' LAST MY,NEW INTERCEPT (A), AND NEW SLOPE (B)')              INP01000
      IF(INFLAG.EQ.0) READ(IREAD,898) IRGALT,IMDALT,IPLALT,           INP01010
     *  MYFRST,MYLAST,BASNEW,DELNEW                                   INP01020
      IF(INFLAG.EQ.1) READ(IREAD,793) IRGALT,IMDALT,IPLALT,           INP01030
     *  MYFRST,MYLAST,BASNEW,DELNEW                                   INP01040
793   FORMAT(I1,1X,I1,1X,I1,1X,I2,1X,I2,1X,F6.2,1X,F6.2)              INP01050
C                                                                     INP01060
        INTALT(1,IFAC) = IRGALT                                       INP01070
        INTALT(2,IFAC) = IMDALT                                       INP01080
        INTALT(3,IFAC) = IPLALT                                       INP01090
        INTALT(4,IFAC) = MYFRST                                       INP01100
        INTALT(5,IFAC) = MYLAST                                       INP01110
        R4ALT(1,IFAC) = BASNEW                                        INP01120
        R4ALT(2,IFAC) = DELNEW                                        INP01130
C                                                                     INP01140
800   CONTINUE                                                        INP01150
C                                                                     INP01160
810   CONTINUE                                                        INP01170
C                                                                     INP01180
C**HERE READ IN INSP./MAINT. PARAMS                                   INP01190
      IF(IMFLG.EQ.0) GO TO 900                                        INP01200
```

```
      IF(IPROMT.EQ.1) WRITE(IWRI,772)                                   INP01210
772   FORMAT('0ENTER YEAR I/M BEGINS, STRINGENCY, M.Y. FLAG,',          INP01220
     *  /,' FIRST MODEL YEAR AND LAST MODEL YEAR OF PROG. BENEFITS')    INP01230
      IF(INFLAG.EQ.0)                                                   INP01240
     *READ(IREAD,888) ICYIM,ISTRIN,IMTFLG,MODYR1,MODYR2                 INP01250
      IF(INFLAG.EQ.1)                                                   INP01260
     *READ(IREAD,729) ICYIM,ISTRIN,IMTFLG,MODYR1,MODYR2                 INP01270
900   CONTINUE                                                          INP01280
C                                                                       INP01290
729   FORMAT(I2,1X,I2,1X,I1,1X,I2,1X,I2)                                INP01300
C                                                                       INP01310
      CALL TFCALX                                                       INP01320
C                                                                       INP01330
      RETURN                                                            INP01340
C                                                                       INP01350
C**********************************************************************INP01360
C                                                                       INP01370
C                                                                       INP01380
C**READ E.F. CALCULATION INPUT PARAMETERS                               INP01390
C                                                                       INP01400
500   CONTINUE                                                          INP01410
C                                                                       INP01420
      IRDFLG = 1                                                        INP01430
C                                                                       INP01440
      IF(IPROMT.EQ.1.AND.SP3FLG.EQ.0) WRITE(IWRI,767)                   INP01450
767   FORMAT('0ENTER REGION, CY,SPD(1),TEMP,PCCO,PCHS,PCCC: ')          INP01460
      IF(IPROMT.EQ.1.AND.SP3FLG.EQ.1) WRITE(IWRI,768)                   INP01470
768   FORMAT('0ENTER REGION, CY,SPD(2),TEMP,PCCO,PCHS,PCCC: ')          INP01480
C                                                                       INP01490
      IF(SP3FLG.EQ.0.AND.INFLAG.EQ.0)                                   INP01500
     *READ(IREAD,888,END=99) IREJN,CY,SP1,TEMP,PCCO,PCHS,PCCC           INP01510
      IF(SP3FLG.EQ.1.AND.INFLAG.EQ.0)                                   INP01520
     *READ(IREAD,888,END=99) IREJN,CY,SP2,TEMP,PCCO,PCHS,PCCC           INP01530
      IF(SP3FLG.EQ.0.AND.INFLAG.EQ.1)                                   INP01540
     *READ(IREAD,725,END=99) IREJN,CY,SP1,TEMP,PCCO,PCHS,PCCC           INP01550
      IF(SP3FLG.EQ.1.AND.INFLAG.EQ.1)                                   INP01560
     *READ(IREAD,725,END=99) IREJN,CY,SP2,TEMP,PCCO,PCHS,PCCC           INP01570
C                                                                       INP01580
725   FORMAT(I1,1X,I2,7(1X,F4.1))                                       INP01590
C                                                                       INP01600
C**CHECK CALENDAR YEAR
```

```
      IF(CY.GE.70) GO TO 505                                                    INP01610
      WRITE(IWRI,785)                                                           INP01620
785   FORMAT(' ***ERROR: CALENDAR YEAR RANGE IS 70 THRU 99')                    INP01630
      STOP                                                                      INP01640
505   CONTINUE                                                                  INP01650
      ICYPR = CY                                                                INP01660
      IF(CY.GT.95) CY = 95                                                      INP01670
C                                                                               INP01680
C**CHECK AMBIENT TEMPERATURE                                                    INP01690
      IF(TEMP.GE.0.0.AND.TEMP.LE.110.) GO TO 697                                INP01700
      WRITE(IWRI,787)                                                           INP01710
787   FORMAT(' ***ERROR: VALID TEMPERATURE RANGE IS 0-110 DEG.(F)')             INP01720
      STOP                                                                      INP01730
697   CONTINUE                                                                  INP01740
C                                                                               INP01750
C**CHECK INPUT SPEED(S)                                                         INP01760
      IF(SP1FLG.EQ.1) GO TO 650                                                 INP01770
      IF(SP1.GT.0.) GO TO 620                                                   INP01780
      WRITE(IWRI,786)                                                           INP01790
786   FORMAT(' ***ERROR: SPEED MUST BE POSITIVE')                               INP01800
      STOP                                                                      INP01810
620   IF(SP1.GT.60.) SP1 = 60.                                                  INP01820
      IF(SP1.LT.5.) WRITE(IWRI,788)                                             INP01830
788   FORMAT(' **WARNING: AVG. ROUTE SPEED LESS THAN 5 M.P.H.')                 INP01840
      GO TO 695                                                                 INP01850
C                                                                               INP01860
650   CONTINUE                                                                  INP01870
      IF(SPD(1).GT.0.0.AND.SPD(2).GT.0.0.AND.SPD(3).GT.0.) GO TO 670            INP01880
      WRITE(IWRI,786)                                                           INP01890
      STOP                                                                      INP01900
670   CONTINUE                                                                  INP01910
      DO 671 I=1,3                                                              INP01920
      IF(SPD(I).LT.5.) WRITE(IWRI,788)                                          INP01930
671   IF(SPD(I).GT.60.) SPD(I) = 60.                                            INP01940
C                                                                               INP01950
695   CONTINUE                                                                  INP01960
C                                                                               INP01970
C**END SPEED CHECK                                                              INP01980
C                                                                               INP01990
      IF(SP3FLG.EQ.1) GO TO 520                                                 INP02000
```

```
C**HERE TO DECOMPOSE SINGLE ENTERED SPEED INTO BAG SPEEDS                    INP02010
C       SPD(1) = SP1*1.30                                                    INP02020
C       SPD(2) = SP1*.825                                                    INP02030
C       SPD(3) = SP1*1.30                                                    INP02040
        SPD(1) = SP1                                                         INP02050
        SPD(2) = SP1                                                         INP02060
        SPD(3) = SP1                                                         INP02070
C       SPD(1) = SP1*(1.3777386 - (PCCC*.30/79.42))                          INP02080
C       SPD(2) = SP1*(.75935 + (PCHS*.175/72.72))                            INP02090
C       SPD(3) = SPD(1)                                                      INP02100
C                                                                            INP02110
C       PCHSNC = PCCC - PCCO + PCHS                                          INP02120
C       PCHSTB = 100. - PCCC - PCHS                                          INP02130
C       SPD(1) = SP1*(1.41114406 - .0041114406*PCCC)                         INP02140
C       SPD(2) = SP1*(.6162276026 + .0038237724*PCHSTB)                      INP02150
C       SPD(3) = SP1*(1.44902449 - .0044902449*PCHSNC)                       INP02160
520     CONTINUE                                                             INP02170
C                                                                            INP02180
        IF(VMFLAG.EQ.1.AND.IPROMT.EQ.1) WRITE(IWRI,769)                      INP02190
769     FORMAT('0ENTER VMT SPLIT:')                                          INP02200
C                                                                            INP02210
        IF(VMFLAG.EQ.1.AND.INFLAG.EQ.0) READ(IREAD,888) VMTMIX               INP02220
        IF(VMFLAG.EQ.1.AND.INFLAG.EQ.1) READ(IREAD,726) VMTMIX               INP02230
C                                                                            INP02240
726     FORMAT(6F4.3)                                                        INP02250
C                                                                            INP02260
C**HERE READ IN ALUH PARAMS                                                  INP02270
        IF(ALHFLG.EQ.0) GO TO 890                                            INP02280
        IF(IPROMT.EQ.1) WRITE(IWRI,770)                                      INP02290
770     FORMAT('0ENTER AC,XLOAD(%),TRAILP,ABSHUM')                           INP02300
        IF(INFLAG.EQ.0)                                                      INP02310
       *READ(IREAD,888) AC,XLOAD,TRAILR,ABSHUM                               INP02320
        IF(INFLAG.EQ.1)                                                      INP02330
       *READ(IREAD,727) AC,XLOAD,TRAILR,ABSHUM                               INP02340
890     CONTINUE                                                             INP02350
C                                                                            INP02360
727     FORMAT(6F4.3)                                                        INP02370
C                                                                            INP02380
C**HERE READ IN TRUCK CHAR. PARAMS                                           INP02390
        IF(TRKFLG.EQ.0) GO TO 895                                            INP02400
```

```
      IF(IPROMT.EQ.1) WRITE(IWR1,771)                                   INP02410
      IF(IPROMT.EQ.1) WRITE(IWR1,771)                                   INP02420
771   FORMAT('0ENTER HGWGT,HDWGT,HGCID,HDCID')                          INP02430
      IF(INFLAG.EQ.0)                                                   INP02440
     *READ(IREAD,888) HGWGT,HDWGT,HGCID,HDCID                           INP02450
      IF(INFLAG.EQ.1)                                                   INP02460
     *READ(IREAD,728) HGWGT,HDWGT,HGCID,HDCID                           INP02470
895   CONTINUE                                                          INP02480
C                                                                       INP02490
728   FORMAT(4F5.0)                                                     INP02500
C                                                                       INP02510
      RETURN                                                            INP02520
C*****                                                                  INP02530
C                                                                       INP02540
C                                                                       INP02550
99    CONTINUE                                                          INP02560
      IRDFLG = 0                                                        INP02570
C     DEBUG SUBCHK                                                      INP02580
      RETURN                                                            INP02590
      END
```

```
      SUBROUTINE OUTPUT(CY,EFRETM,WTEDEF,COMCCC,IDLRTM,IDLWTD)                  OUT00010
                                                                                OUT00020
C                                                                               OUT00030
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IRDFLG,SP3FLG,NMHFLG,IDLFLG,           OUT00040
     *              UNFFLG,MYMRFG,IMFLG,ICFVFG,PRTFLG,IFORM                     OUT00050
      COMMON/REGCOM/IREJN                                                       OUT00060
      COMMON/BEFCOM/BEF                                                         OUT00070
      COMMON/LNKCOM/SPD,TEMP,FCCO,FCHS,FCCC,VMTMIX                              OUT00080
      COMMON/ALTCOM/INTALT(5,100),R4ALT(2,100),MODFLG(100),NEWFAC               OUT00090
      COMMON/MYMCOM/MYM,MYR,TF                                                  OUT00100
      COMMON/JUNK1/AC,XLOAD,TRAILR,ADSHUF                                       OUT00110
      COMMON/JUNK2/HGWGT,HDWGT,HGCID,HDCID                                      OUT00120
      COMMON/RET1/ALHRET                                                        OUT00130
      COMMON/RET2/TRKRET(20,3,2)                                                OUT00140
      COMMON/PROJCM/PROJID                                                      OUT00150
      COMMON/IMCOM/ICYIM,ISTRIN,IMTFLG,MODYR1,MODYR2                            OUT00160
      COMMON/SP1COM/SP1,SPAV                                                    OUT00170
C                                                                               OUT00180
      INTEGER ALHFLG,TRKFLG,ALTFLG,ALTKOD(4,20),CY,SP3FLG,                      OUT00190
     *        NMHFLG,IDLFLG,UNFFLG,MYMRFG,PRTFLG                                OUT00200
      REAL VMTMIX(6),MYM(20,6),MYR(20,6),PNAM1(3),PNAM2(3),PNAM3(3)             OUT00210
      REAL SPD(3),XLOAD(3)                                                      OUT00220
      REAL EVPNAM(2),EXHHDR(2),IDLNM1(2),IDLNM2(2),IDLNM3(2)                    OUT00230
      REAL IDLRTM(2,6),IDLWTD(2),PNAMH(2)                                       OUT00240
      REAL IDLHDR(8),IDLHD2(4),REGN1(3),REGN2(3)                                OUT00250
      REAL ALHRET(20,4,3)                                                       OUT00260
C     REAL A(20,3,3),U(20,3,3),L(3,3),H(3),XLOAD(3)                             OUT00270
      REAL EFRETM(2,6),WTEDEF(2),LNKDTA(7),PROJID(20)                           OUT00280
      REAL COMCCC(6),TF(20,6)                                                   OUT00290
      REAL BEF(20,26,3,6)                                                       OUT00300
      REAL YESNO(2)                                                             OUT00310
      EQUIVALENCE (SPD(1),LNKDTA(1))                                            OUT00320
C                                                                               OUT00330
      DATA PNAMH/'NON-','METH'/                                                 OUT00340
      DATA PNAM1/'  T','EXHA','EXHA'/                                           OUT00350
      DATA PNAM2/'OTAL','UST ','UST '/                                          OUT00360
      DATA PNAM3/' HC ',' CO ','NOX '/                                          OUT00370
      DATA IDLNM1/'  I','  I','  I'/                                            OUT00380
      DATA IDLNM2/'DLE ','DLE ','DLE '/                                         OUT00390
      DATA IDLNM3/' HC ',' CO ','NOX '/                                         OUT00400
      DATA EVPNAM/'  *','EVAP',' HC '/,EVPNMB/'E'/
```

```
      DATA IWRI,IWRUNF/6,9/                                                    OUT00410
      DATA EXHHDR/'COMP','OSIT','E EM','ISSI','ON F','ACTO',                   OUT00420
     *    'RS (','GM/M','ILE)'/                                               OUT00430
      DATA IDLHDR/'IDLE',' EMI','SSIO','N FA','CTOR','S (G',                   OUT00440
     *   'M/MI','N)  '/                                                       OUT00450
      DATA IDLHD2/' HOT',' STA','BILI','ZED '/                                 OUT00460
      DATA REGN1/'49-S','CALI','HI-A'/                                         OUT00470
      DATA REGN2/'TATE','F.  ','LT. '/                                         OUT00480
      DATA DASH/'----'/                                                        OUT00490
      DATA INITFL/1/                                                           OUT00500
      DATA YESNO/'NO  ','YES '/                                                OUT00510
C                                                                              OUT00520
C**************************************************************************** OUT00530
      IF(NMHFLG.EQ.0) GO TO 77                                                 OUT00540
      PNAM1(1) = PNAMH(1)                                                      OUT00550
      PNAM2(1) = PNAMH(2)                                                      OUT00560
77    CONTINUE                                                                 OUT00570
C                                                                              OUT00580
      IF(INITFL.NE.1) GO TO 175                                                OUT00590
C**HERE FIRST TIME                                                             OUT00600
      INITFL=0                                                                 OUT00610
      IF(IFORM.EQ.0) WRITE(IWRI,7011) PROJID                                   OUT00620
      IF(IFORM.EQ.0) WRITE(IWRI,7012)                                          OUT00630
      IF(IFORM.EQ.0) WRITE(IWRI,7013)                                          OUT00640
      IF(IFORM.EQ.0) WRITE(IWRI,7014)                                          OUT00650
C                                                                              OUT00660
      IF(IFORM.EQ.1) WRITE(IWRI,701) PROJID                                    OUT00670
C                                                                              OUT00680
C**WRITE E.F. MODIFICATION PROFILE                                             OUT00690
      IF(ALTFLG.EQ.0) GO TO 100                                                OUT00700
      IF(IFORM.EQ.0) GO TO 100                                                 OUT00710
C                                                                              OUT00720
      WRITE(IWRI,765)                                                          OUT00730
      WRITE(IWRI,766)                                                          OUT00740
      DO 111 IFAC = 1,NEWFAC                                                   OUT00750
      IF(MODFLG(IFAC).EQ.0) WRITE(IWRI,767) (INTALT(J,IFAC),J=1,5),            OUT00760
     *   (R4ALT(K,IFAC),K=1,2)                                                OUT00770
      IF(MODFLG(IFAC).EQ.1) WRITE(IWRI,768) (INTALT(J,IFAC),J=1,5),            OUT00780
     *   (R4ALT(K,IFAC),K=1,2)                                                OUT00790
111   CONTINUE                                                                 OUT00800
```

```
100   CONTINUF
765   FORMAT('0','   EMISSION FACTOR MODIFICATION PROFILE:')
766   FORMAT(' REGION  MODE  POLLUTANT  FIRST MY  LAST MY    BASE     ',
     *  'DEL  ALTERED',
     *     /,'+______,----  ---------  --------  -------    ----
     *  '___  _______')
767   FORMAT(1X,2X,I1,7X,I1,8X,I1,7X,'19',I2,5X,'19',I2,4X,F6.2,2X,F6.2,
     *  4X,'NO')
768   FORMAT(1X,2X,I1,7X,I1,8X,I1,7X,'19',I2,5X,'19',I2,4X,F6.2,2X,F6.2,
     *  4X,'YES')
C**END E.F. MODIFICATION PROFILE
C
      IF(IFORM.EQ.1) WRITE(IWRI,7017) PNAM1(1),PNAM2(1),PNAM3(1)
C
7013  FORMAT(1X,'G CY   BAG SPEEDS   TMP   COLD/HOT START  L    L',
     *  'DV     LDT1   LDT2    HDG     HDD     MC ',
     *  '    LDV   LDT1  LDT2  HDG    HDD    MC ',
     *  ' ALL VEH')                                          P'/,
7012  FORMAT('0R                              AMB.              0',    ',
     *           ' E
     *  '         COMPOSITE  EMISSION  FACTORS
     *  'VEHICLE MIX                         C.E.F.')
C
7014  FORMAT(' - -- ------------- ---  ---------------',
     *  ' - -----------------------------------------',
     *  ' -------------------------------------',
     *  ' ------')
C
7017  FORMAT('0',2X,'*',2A4,A3,' EMISSION FACTORS INCLUDE ',
     *  'EVAP. HC EMISSION FACTORS')
C
      IF(IFORM.EQ.1) WRITE(IWRI,710)
175   CONTINUE
C
      IF(IFORM.EQ.0) GO TO 888
C*****************************************************************************
C
      WRITE(IWRI,7029)
      IF(SP3FLG.EQ.1)
     *WRITE(IWRI,703) CY,TEMP,VMTMIX,REGN1(IREJN),REGN2(IREJN),SPD,SPAV,
```

```
     *  PCCO,PCHS,PCCC                                                          OUT01210
      IF(SP3FLG.EQ.0)                                                         OUT01220
     *WRITE(IWRI,7035) CY,TEMP,VMTMIX,REGN1(IREJN),REGN2(IREJN),SP1,SPD,OUT01230
     *  SPAV,PCCO,PCHS,PCCC                                                   OUT01240
      IF(ALHFLG.EQ.1) WRITE(IWRI,704) AC,XLOAD,TRAILR,ABSHUM                  OUT01250
      IF(TRKFLG.EQ.1) WRITE(IWRI,705) HGVGT,HDVGT,HGCID,HDCID                 OUT01260
      IF(IMFLG.GT.0) WRITE(IWRI,7051) ICYIM,ISTRIN,YESNO(IMTFLG+1)            OUT01270
      IF(IMFLG.GT.0) WRITE(IWRI,7052) MODYR1,MODYR2                           OUT01280
C                                                                             OUT01290
      WRITE(IWRI,7059) EXHHDR                                                 OUT01300
      WRITE(IWRI,706)                                                         OUT01310
C                                                                             OUT01320
      IF(PRTFLG.EQ.0.OR.PRTFLG.EQ.1)                                          OUT01330
     *WRITE(IWRI,707) PNAM1(1),PNAM2(1),PNAM3(1),(EFRETM(1,IM),IM=1,6),       OUT01340
     *  WTEDEF(1)                                                             OUT01350
      IF(ICEVFG.EQ.1) WRITE(IWRI,708) EVFNAM,COMCCC,DASH                      OUT01360
      IF(PRTFLG.EQ.0.OR.PRTFLG.EQ.2)                                          OUT01370
     *WRITE(IWRI,707) PNAM1(2),PNAM2(2),PNAM3(2),(EFRETM(2,IM),IM=1,6),       OUT01380
     *  WTEDEF(2)                                                             OUT01390
      IF(PRTFLG.EQ.0.OR.PRTFLG.EQ.3)                                          OUT01400
     *WRITE(IWRI,707) PNAM1(3),PNAM2(3),PNAM3(3),(EFRETM(3,IM),IM=1,6),       OUT01410
     *  WTEDEF(3)                                                             OUT01420
C                                                                             OUT01430
      IF(IDLFLG.EQ.0) GO TO 200                                               OUT01440
      WRITE(IWRI,709) IDLHD2,IDLHDR                                           OUT01450
      WRITE(IWRI,707) (IDLNM1(IQ),IDLNM2(IQ),IDLNM3(IQ),(IDLRTM(IQ,IM),       OUT01460
     *  IM=1,6),IDLWTD(IQ),IQ=1,3)                                            OUT01470
200   CONTINUE                                                                OUT01480
C                                                                             OUT01490
      WRITE(IWRI,710)                                                         OUT01500
C                                                                             OUT01510
      GO TO 899                                                               OUT01520
C                                                                             OUT01530
C*************************************************************************** OUT01540
C                                                                             OUT01550
888   CONTINUE                                                                OUT01560
         IPP1=PRTFLG                                                          OUT01570
         IPP2=PRTFLG                                                          OUT01580
         IF(PRTFLG.EQ.0) IPP1=1                                               OUT01590
         IF(PRTFLG.EQ.0) IPP2=3                                               OUT01600
```

```
      IF(ICEVFG.EQ.1) WRITE(IWRI,7088) IREJN,CY,SPD,TEMP,PCCO,PCHS,      OUT01610
     *     PCCC,EVPNMB,COMCCC,VMTMIX                                     OUT01620
7088  FORMAT(1X,I1,1X,I2,1X,F4.1,'/',F4.1,'/',F4.1,1X,                   OUT01630
     *  F3.0,1X,F5.1,1X,F5.1,1X,F5.1,1X,A1,6F7.2,6F6.3)                  OUT01640
      DO 1203 IPNX=IPP1,IPP2                                            OUT01650
      WRITE(IWRI,7908O) IREJN,CY,SPD,TEMF,PCCO,PCHS,PCCC,IPNX,          OUT01660
     *  (EFRETM(IPNX,IM),IM=1,6),VMTMIX,WTEDEF(IPNX)                    OUT01670
1203  CONTINUE                                                          OUT01680
7908O FORMAT(1X,I1,1X,I2,1X,F4.1,'/',F4.1,'/',F4.1,1X,                  OUT01690
     *  F3.0,1X,F5.1,1X,F5.1,1X,F5.1,1X,I1,6F7.2,6F6.3,F7.2)            OUT01700
C                                                                       OUT01710
899   CONTINUE                                                          OUT01720
C                                                                       OUT01730
C                                                                       OUT01740
C*********************************************************************OUT01750
C                                                                       OUT01760
      IF(UNFFLG.EQ.1) WRITE(IWRUNF) EFRETM,WTEDEF                       OUT01770
C                                                                       OUT01780
C*********************************************************************OUT01790
C                                                                       OUT01800
701   FORMAT('1',20A4//)                                                OUT01810
7011  FORMAT('1',20A4)                                                  OUT01820
C                                                                       OUT01830
7029  FORMAT(32X,'VEH. TYPE:  LDV   LDT1  LDT2  HDG   HDD   MC')       OUT01840
C                                                                       OUT01850
703   FORMAT('  CAL. YEAR: 19',I2,5X,'TEMP: ',F4.1,                     OUT01860
     *  '(F)',8X,5(F5.3,'/'),F5.3,                                      OUT01870
     *  /1X,' REGION: ',2A4,4X,F4.1,'/',F4.1,'/',F4.1,                  OUT01880
     *  ' MPH ','(',F4.1,')',7X,' ',F5.1,'/',F5.1,'/',F5.1 )            OUT01890
C                                                                       OUT01900
7035  FORMAT('  CAL. YEAR: 19',I2,5X,'TEMP: ',F4.1,                     OUT01910
     *  '(F)',8X,5(F5.3,'/'),F5.3,                                      OUT01920
     *  /1X,' REGION: ',2A4,4X,F4.1,':',F4.1,'/',F4.1,'/',F4.1,         OUT01930
     *  ' MPH ','(',F4.1,')',3X,' ',F5.1,'/',F5.1,'/',F5.1 )            OUT01940
704   FORMAT('   AC:',F6.2,2X,'XLOAD:',3F7.2,2X,'TRAILR:',               OUT01950
     *  F7.2,2X,'APSHUM:',F7.2)                                         OUT01960
C                                                                       OUT01970
705   FORMAT('   HGWGT:',F7.0,2X,'HDWGT:',F7.0,2X,'HGCID:',              OUT01980
     *  F7.2,2X,'HDCID:',F7.2)                                          OUT01990
C                                                                       OUT02000
7051  FORMAT('   LDV I/M PROGRAM STARTING IN 19',I2,
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     *  ', STRINGENCY LEVEL ',I2,'%, MECH. TRAINING: ',A4)                  OUT02010
C                                                                          OUT02020
7052  FORMAT('   I/M PROG. BENEFITS APPLY ONLY TO MODEL YEARS 19',          OUT02030
     *  I2,' THROUGH 19',I2)                                               OUT02040
7055  FORMAT('0',27X,9A4)                                                  OUT02050
C                                                                          OUT02060
706   FORMAT(' ',15X,'LDV      LDT1      LDT2      HDG       HDD    ',     OUT02070
     *  '    MC       ALL MODES')                                         OUT02080
C                                                                          OUT02090
707   FORMAT(1X,2A4,A3,':',6(F7.2,2X),1X,F8.2))                            OUT02100
C                                                                          OUT02110
708   FORMAT(1X,2A4,A3,':',6(F7.2,2X),5X,A4)                               OUT02120
C                                                                          OUT02130
709   FORMAT('0',16X,4A4,8A4)                                              OUT02140
C                                                                          OUT02150
710   FORMAT(' ----------------------------------------',                  OUT02160
     *'----------------------------------')                                OUT02170
C                                                                          OUT02180
C                                                                          OUT02190
C     DEBUG SUBCHK                                                         OUT02200
      RETURN                                                               OUT02210
      END                                                                  OUT02220
```

```
      SUBROUTINE EFCALX(CY,LNKDTA,MS,EFRETM,WTEDEF,CCRETM,IDLRTM,IDLWTD)EFC00010
C                                                                       EFC00020
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IRDFLG,SPTFLG,NMHFLG,IDLFLG,   EFC00030
     *              UNFFLG,MYMRFG,IMFLG,ICEVFG,PRTFLG,IFORM            EFC00040
      COMMON/CEVCOM/CCEV                                                EFC00050
      COMMON/REGCOM/IREJN                                               EFC00060
      COMMON/BEFCOM/BEF                                                 EFC00070
      COMMON/IDLCOM/IDLBEF                                              EFC00080
      COMMON/MYMCOM/MYM,MYR,TF                                          EFC00090
C                                                                       EFC00100
      INTEGER MYP , P , CYP                                             EFC00110
      INTEGER ALHFLG,TRKFLG,ALTFLG,CY,SPTFLG,                           EFC00120
     *        NMHFLG,IDLFLG,UNFFLG,MYMRFG,PRTFLG                        EFC00130
C                                                                       EFC00140
      REAL IDLBEF(20,26,3,6),IDLFAC(20,3,6),IDLCMP(3,6),IDLWTD(3)       EFC00150
      REAL IDLRTM(3,6)                                                  EFC00160
      REAL COMPCC(20,6),CCRETM(6)                                       EFC00170
      REAL CFRET(20,3,6)                                                EFC00180
      REAL     BEF(20,26,3,6),     CCEV(45,6),                          EFC00190
     *         EFRETM(3,6),        COMPEF(20,3,6),                      EFC00200
     *         COMPMY(3,6),        LNKDTA(7),                           EFC00210
     *         MYM(20,6),          MYR(20,6),                           EFC00220
     *         MS(6),              PCCO,                                EFC00230
     *         PCCC,               PCHS,                                EFC00240
     *         SPD(3),             TEMP,                                EFC00250
     *         TF(20,6),           WTEDEF(3)                            EFC00260
      DIMENSION R1(20,3,6),R2(20,3,6),XISPD(3)                          EFC00270
C                                                                       EFC00280
C*****************************************************************     EFC00290
C                                                                       EFC00300
      SPD(1)  = LNKDTA(1)                                               EFC00310
      SPD(2)  = LNKDTA(2)                                               EFC00320
      SPD(3)  = LNKDTA(3)                                               EFC00330
      TEMP    = LNKDTA(4)                                               EFC00340
      PCCO    = LNKDTA(5)                                               EFC00350
      PCHS    = LNKDTA(6)                                               EFC00360
      PCCC    = LNKDTA(7)                                               EFC00370
C                                                                       EFC00380
C                                                                       EFC00390
                                                                        EFC00400
```

```
            CALL BIGCFX(CY,TEMP,PCCO,PCHS,PCCC,SPD,CFRET)                    EFC00410
C                                                                            EFC00420
      XISPD(1)=5.0                                                           EFC00430
      XISPD(2)=5.0                                                           EFC00440
      XISPD(3)=5.0                                                           EFC00450
      XITEMP=75.0                                                            EFC00460
      XIPCCO=0.0                                                             EFC00470
      XIPCHS=0.0                                                             EFC00480
      XIPCC=0.0                                                              EFC00490
      CALL BIGCFX(CY,TEMP,PCCO,PCHS,PCCC,XISPD,R1)                           EFC00500
      CALL BIGCFX(CY,XITEMP,XIPCCO,XIPCHS,CIPCCC,XISPD,R2)                   EFC00510
C                                                                            EFC00520
      CYP = CY - 69                                                          EFC00530
C                                                                            EFC00540
C                                                                            EFC00550
      DO 500 P = 1,3                                                         EFC00560
            WTEDEF(P) = 0.0                                                  EFC00570
            IDLWTD(P) = 0.0                                                  EFC00580
         DO 400 M = 1,6                                                      EFC00590
            COMPMY(P,M) = 0.0                                                EFC00600
            IDLCMP(P,M) = 0.0                                                EFC00610
      IF(P.EQ.1) CCRETM(M)=0.                                                EFC00620
          DO 300 I = 1,20                                                    EFC00630
C                                                                            EFC00640
      MYP = CY -(20-I) - 50                                                  EFC00650
C                                                                            EFC00660
            IF (P.EQ.1)  GO TO 333                                           EFC00670
            GO TO 444                                                        EFC00680
C                                                                            EFC00690
333   COMPEF(I,P,M)=(BEF(I,CYP,P,M)*CFRET(I,P,M)+ CCEV(MYP,M))*TF(I,M)       EFC00700
      COMPCC(I,M)   =CCEV(MYP,M)*TF(I,M)                                     EFC00710
      GO TO 555                                                              EFC00720
444   COMPEF(I,P,M)=(BEF(I,CYP,P,M)*CFRET(I,P,M)                )*TF(I,M)   EFC00730
C                                                                            EFC00740
555   CONTINUE                                                               EFC00750
C                                                                            EFC00760
      IDLFAC(I,P,M)=IDLBEF(I,CYP,P,M)*R1(I,P,M)*TF(I,M)/R2(I,P,M)            EFC00770
C                                                                            EFC00780
      COMPMY(P,M) = COMPMY(P,M) + COMPEF(I,P,M)                              EFC00790
      IDLCMP(P,M) = IDLCMP(P,M) + IDLFAC(I,P,M)                              EFC00800
```

```
      IF(P.EQ.1) CCRETM(M) = CCRETM(M) + COMPCC(I,M)                    EFC00810
C                                                                       EFC00820
300         CONTINUE                                                    EFC00830
      WTDEF(P) = WTDEF(P) + COMPMY(P,M)*MS(M)                           EFC00840
      IDLWTD(P) = IDLWTD(P) + IDLCMP(P,M)*MS(M)                         EFC00850
400      CONTINUE                                                       EFC00860
C                                                                       EFC00870
500   CONTINUE                                                          EFC00880
C                                                                       EFC00890
      DO 600 M = 1,6                                                    EFC00900
      DO 600 P = 1,3                                                    EFC00910
        EFRETM(P,M) = COMPMY(P,M)                                       EFC00920
        IDLRTM(P,M) = IDLCMP(P,M)                                       EFC00930
600   CONTINUE                                                          EFC00940
C                                                                       EFC00950
C                                                                       EFC00960
      RETURN                                                            EFC00970
C                                                                       EFC00980
      END                                                               EFC00990
```

```
      SUBROUTINE BIGCFX(CY,T,PCCO,PCHS,PCCC,SPD,CFRET)                  BIG00010
C                                                                       BIG00020
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IPDFLG,SP3FLG,NMHFLG,IDLFLG,   BIG00030
     *              UNFFLG,MYMRFG,IMFLG,ICEVFG,PRTFLG,IFORM            BIG00040
      COMMON/ALTCOM/INTALT(5,100),P4ALT(2,100),MODFLG(100),NEWFAC       BIG00050
      COMMON/RFGCOM/IREJN                                               BIG00060
      COMMON/JUNK1/AC,XLOAD,TRAILR,ADSHUP                               BIG00070
      COMMON/JUNK2/HGWGT,HDWGT,HGCID,HDCID                              BIG00080
      COMMON/RET1/ALHRET(20,4,3)                                        BIG00090
      COMMON/RET2/TRKRET(20,3,2)                                        BIG00100
      COMMON/SP1COM/SP1,SPAV                                            BIG00110
      COMMON/MYMCOM/MYM,MYR,TF                                          BIG00120
C                                                                       BIG00130
      INTEGER ALHFLG,TRKFLG,ALTFLG,ALTKOD(4,20),CY,SP3FLG,              BIG00140
     *        NMHFLG,IDLFLG,UNFFLG,MYMRFG,PRTFLG                        BIG00150
      INTEGER INITFL,IEQNAR(45,2,3,4),HDINDX(45,3)                      BIG00160
      INTEGER CY,G(45,3,4)                                              BIG00170
C IN G, 1ST INDEX IS MY, 2ND IS REGION, AND 3RD IS MODE                 BIG00180
C IN IEQNAR, 2ND INDEX IS POLLUTANT, 3RD IS REGION, 4TH IS MODE         BIG00190
C IN HDINDX, 2ND INDEX IS REGION (NOT FUNCTION OF POL. OR MODE)         BIG00200
C                                                                       BIG00210
C     REAL A(20,3,3),U(20,3,3),                                         BIG00220
C    *  L(3,3),H(3)                                                    BIG00230
      REAL XLOAD(3)                                                     BIG00240
      REAL T,SPD(3),SPB(3),CFRET(20,3,6)                                BIG00250
      REAL D1(4,3),D2(4,3)                                              BIG00260
      REAL MIDDLE,LEFT                                                  BIG00270
      REAL SPBACK(18,3,3),SPBOT(18,3,3)                                 BIG00280
      REAL ATR(4,3,2),BTR(4,3,2),CTR(4,3,2)                             BIG00290
      REAL C(4,8,3)                                                     BIG00300
      REAL CUMMIL(20,6),MYM(20,6),MYR(20,6),TF(20,6)                    BIG00310
      INTEGER MAXAGE(4)                                                 BIG00320
C                                                                       BIG00330
      DATA MAXAGE/19,19,19,19/                                          BIG00340
      DATA INITFL/1/                                                    BIG00350
C                                                                       BIG00360
C*************************************************************************BIG00370
C                                                                       BIG00380
C**COEFFICIENTS IN SPEED/TEMP/COLD START FACTOR: EQN,INDEX,POL.         BIG00390
      DATA C/                                                           BIG00400
```

```
     *   2.931000, 2.931000, 2.433000, 1.993400,                          BIG00410
     *  -0.014779,-0.014779,-0.023591,-0.022269,                          BIG00420
     *   0.673,-2.410, 0.623,-0.032, 0.569, 0.863, 0.301, 0.445,          BIG00430
     *   4.750, 2.430, 1.110, 0.497, 0.353, 0.555, 0.294, 0.357,          BIG00440
     *   5.690, 2.610, 1.050, 0.247, 0.471, 0.597, 0.270, 0.175,          BIG00450
     *   5.654800, 5.654800, 5.546000, 4.239100,                          BIG00460
     *  -0.015965,-0.015965,-0.028945,-0.017522,                          BIG00470
     *  -14.74,-33.89, 11.29, -0.20,  9.62,  9.77,                        BIG00480
     *    4.24,  6.99, 42.84, 25.26, 15.85,  4.12,                        BIG00490
     *    5.76,  4.71,  2.34,  2.20, 57.57, 35.90,                        BIG00500
     *   21.17,  3.96,  7.74,  6.70,  3.13,  2.12,                        BIG00510
     *  -0.10E+03,-0.10E+03,-0.10E+03,-0.10E+03,                          BIG00520
     *   0.0  , 0.0  , 0.0  , 0.0  , 1.140, 1.160,                        BIG00530
     *   3.260, 3.050, 0.0  , 0.0  , 0.335, 0.318,                        BIG00540
     *   1.250, 1.260, 2.990, 2.880, 0.0  , 0.0  ,                        BIG00550
     *   0.184, 0.180, 0.810, 0.800, 1.890, 2.010,                        BIG00560
     *   0.0  , 0.0  , 0.116, 0.126  /                                    BIG00570
C                                                                         BIG00580
C**COEFFICIENTS IN DENOMINATOR OF SPEED/TEMP/COLD START FACTOR            BIG00590
      DATA D1/5.67,2.8,1.38,.54,56.43,36.4,23.7,6.98,1.,1.,2.47,2.46/     BIG00600
      DATA D2/.47,.64,.28,.28,7.59,6.79,3.14,3.14,0.,0.,.18,.18/          BIG00610
C                                                                         BIG00620
C**SPEED CORRECTION FACTOR INDEX= CAL. YR., REGION, MODE                  BIG00630
      DATA G/15*2, 2, 2, 4, 5, 6, 7,14,17,17,18,18,18,18*18,             BIG00640
     *       15*2, 3, 3, 4, 5, 6, 7,13,16,16,18,18,18,18*18,             BIG00650
     *       15*1, 1, 1, 8, 9,10,11,12,15,15,18,18,18,18*18,             BIG00660
     *                                                                   BIG00670
     *       15*2, 2, 2, 4, 5, 6, 7,14,17,17,18,18,18,18*18,             BIG00680
     *       15*2, 2, 2, 4, 5, 6, 7,13,16,16,18,18,18,18*18,             BIG00690
     *       15*1, 1, 1, 8, 9,10,11,12,15,15,18,18,18,18*18,             BIG00700
     *                                                                   BIG00710
     *       28*14,17*18,                                                BIG00720
     *       27*13,18*18,                                                BIG00730
     *       28*12,17*18,                                                BIG00740
     *                                                                   BIG00750
     *       15*2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,18*17,             BIG00760
     *       15*2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,18*16,             BIG00770
     *       15*1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,18*15 /            BIG00780
C                                                                         BIG00790
      DATA IEQNAR/17*1,7*2,5*3,16*4,  17*1,7*2,5*3,16*4,                  BIG00800
```

```
     *          17*1,7*2,2*3,19*4,  15*1,9*2,     21*4,
     *          15*1,9*2,     21*4,  15*1,9*2,     21*4,
     *          17*1,7*2,5*3,16*4,  17*1,7*2,5*3,16*4,
     *          17*1,7*2,2*3,19*4,
     *          17*1,7*2,21*3,      17*1,7*2,21*3,
     *          17*1,7*2,21*3,      17*1,7*2,     21*4,
     *          17*1,7*2,     21*4,  17*1,7*2,     21*4,
     *          17*1,7*2,21*3,      17*1,7*2,21*3,
     *          17*1,7*2,21*3,
     *          28*2,17*3,          28*2,17*3,
     *          28*2,17*3,          27*2,18*4,
     *          27*2,18*4,          27*2,18*4,
     *          28*2,17*3,          28*2,17*3,
     *          28*2,17*3,
     *          27*1,18*2,27*1,18*2,27*1,18*2,
     *          27*1,18*2,27*1,18*2,27*1,18*2,
     *          27*1,18*2,27*1,18*2,27*1,18*2  /
C
      DATA HDINDX/19*1,4*2,5*3,17*4,
     *            19*1,4*2,1*3,21*4,
     *            19*1,4*2,5*3,17*4   /
C
C
C*****************************************************************
C
      IF(INITFL.NE.1) GO TO 177
C   HERE 1ST TIME
      INITFL = 0
      SPB(1) = 26.0
      SPB(2) = 16.0
      SPB(3) = 26.0
      CALL SPFCLX(SPB,SPBOT)
C
C
      CALL GETCUM(CUMMIL)
C
C
C*****************************************************************
C
177   CONTINUE
```

```
C                                                                       BIG01210
      CALL SPECLX(SPD,SPPACK)                                           BIG01220
C                                                                       BIG01230
C                                                                       BIG01240
      IF(ALHFLG.EQ.1) CALL ALUH(CY,AC,XLOAD,TRAILR,PCCO,PCCC,APSHUM)    BIG01250
C                                                                       BIG01260
C                                                                       BIG01270
      FCO = PCCO*.01                                                    BIG01280
      FHC = PCHS*.01                                                    BIG01290
      FCC = PCCC*.01                                                    BIG01300
C                                                                       BIG01310
C**FRACTION COLD OP(NON-CAT): FCO                                       BIG01320
C**FRACTION HOT START(CAT):   FHC                                       BIG01330
C**FRACTION COLD OP(CAT)   :   FCC                                      BIG01340
C**FRACTION HOT START(NON-CAT): FHO                                     BIG01350
      FHO = (FCC-FCO) * FHC                                             BIG01360
C                                                                       BIG01370
      DO 500 I = 1,20                                                   BIG01380
C                                                                       BIG01390
         MY = CY - (20-I)                                               BIG01400
         MYC = MY - 50                                                  BIG01410
         IAGE = CY - MY                                                 BIG01420
         AGE = IAGE                                                     BIG01430
C                                                                       BIG01440
C**********************                                                BIG01450
      IF(MYC.LE.0) STOP                                                 BIG01460
C>>>>>>>>>>>>>>>>>>>>>>>>                                               BIG01470
C                                                                       BIG01480
      DO 500 IMODE = 1,4                                                BIG01490
C                                                                       BIG01500
      IMOD4 = IMODE                                                     BIG01510
      IF(IMODE.EQ.4) IMOD4 = 6                                          BIG01520
      IAGEM = IAGE                                                      BIG01530
         MAX = MAXAGE(IMODE)                                            BIG01540
      IF(IAGEM.GT.MAX) IAGEM = MAX                                      BIG01550
         IF(IAGEM.EQ.0) VMTAGE = 0.0                                    BIG01560
         IF(IAGEM.GT.0) VMTAGE = CUMMIL(IAGEM,IMOD4)*.0001              BIG01570
C                                                                       BIG01580
         IGX = G(MYC,IREJN,IMODE)                                       BIG01590
C                                                                       BIG01600
```

```
      DO 500 IP = 1,3                                                    BIG01610
C                                                                        BIG01620
C**DEFAULT                                                               BIG01630
C                                                                        BIG01640
      IEQN = IEQNAR(MYC,IP,IREJN,IMODE)                                  BIG01650
C                                                                        BIG01660
C**************************************                                  BIG01670
C                                                                        BIG01680
C                                                                        BIG01690
      FACL = FCO                                                         BIG01700
      FACM = FMO                                                         BIG01710
      IF(IEQN.LT.2) GO TO 888                                            BIG01720
      FACL = FCC                                                         BIG01730
      FACM = FMC                                                         BIG01740
888   FACR = (1.0 - FACL - FACM)                                         BIG01750
C                                                                        BIG01760
C**************************************************************************BIG01770
C                                                                        BIG01780
      DENOM = D1(IEQN,IP) + D2(IEQN,IP)*VMTAGE                           BIG01790
C                                                                        BIG01800
      LEFT = FACL * (EXP(C(IEQN,1,IP)+T*(C(IEQN,2,IP)) + C(IEQN,3,IP) +  BIG01810
     *  C(IEQN,4,IP)*VMTAGE) * SPBACK(2,1,IP)/SPBOT(2,1,IP)             BIG01820
C                                                                        BIG01830
C                                                                        BIG01840
      MIDDLE=FACM*(C(IEQN,5,IP)+C(IEQN,6,IP)*VMTAGE)                     BIG01850
     *     *SPBACK(IGX,3,IP)/SPBOT(IGX,3,IP)                           BIG01860
C                                                                        BIG01870
C                                                                        BIG01880
      RIGHT=FACR*(C(IEQN,7,IP)+C(IEQN,8,IP)*VMTAGE)                      BIG01890
     *      *SPBACK(IGX,2,IP)/SPBOT(IGX,2,IP)                          BIG01900
C                                                                        BIG01910
      TOP = LEFT + MIDDLE + RIGHT                                        BIG01920
C                                                                        BIG01930
C                                                                        BIG01940
      FACTOR = TOP/DENOM                                                 BIG01950
C                                                                        BIG01960
      IF(ALHFLG.EQ.1) FACTOR = FACTOR*ALHFRET(I,IMODE,IP)                BIG01970
C                                                                        BIG01980
      IMOD2 = IMODE                                                      BIG01990
C                                                                        BIG02000
```

```
      IF(IMODE.EQ.4) IMOD2 = 6                                          BIG02010
C                                                                       BIG02020
      CFRET(I,IP,IMOD2) = FACTOR                                        BIG02030
C                                                                       BIG02040
500   CONTINUE                                                          BIG02050
C                                                                       BIG02060
C**********************************************************************BIG02070
C                                                                       BIG02080
C                                                                       BIG02090
C    FOR MODES 4 AND 5                                                  BIG02100
C                                                                       BIG02110
C                                                                       BIG02120
      DATA ATR/ 2.42, 1.14, 1.56, 1.54,                                 BIG02130
     *          1.74, 1.54, 1.24, 0.62,                                 BIG02140
     *          .851, .812, .820, .764,                                 BIG02150
     *          0.94, 0.94,  .820, 1.20,                                BIG02160
     *          1.44, 1.44,  1.20, 1.44,                                BIG02170
     *          0.62, 0.62,  0.72, 1.00  /                              BIG02180
C                                                                       BIG02190
      DATA BTR/ -.157, -.065,  -.096, -.071,                            BIG02200
     *          -.117, -.097,  -.078, -.039,                            BIG02210
     *          .0074, .0094,  .0091, .0120,                            BIG02220
     *          -.055, -.055,  -.051, -.072,                            BIG02230
     *          -.092, -.092,  -.072, -.088,                            BIG02240
     *          -.043, -.043,  -.054, -.074  /                          BIG02250
C                                                                       BIG02260
      DATA CTR/ .0016, .0004, .0002, -.0003,                            BIG02270
     *          .0015, .0010, .0008, .0004,                             BIG02280
     *          .0000, .0000, .0000, .0000,                             BIG02290
     *          .0004, .0004,  .0005, .0006,                            BIG02300
     *          .0010, .0010,  .0006, .0008,                            BIG02310
     *          .0006, .0006,  .0009, .0012  /                          BIG02320
C                                                                       BIG02330
      IF(TRKFLG.EQ.1) CALL TRKOPC(CY,HGWGT,HDWGT,HGCID,HDCID)           BIG02340
C                                                                       BIG02350
C     IF(SP3FLG.EQ.0) SPAV = SPD(1)/(1.3777386 - (PCCC*.30/79.42))      BIG02360
      IF(SP3FLG.EQ.0) SPAV = SP1                                        BIG02370
C     IF(SP3FLG.EQ.1) SPAV = SPD(1)/(1.41114406 - (PCCC*.0041114406))   BIG02380
      IF(SP3FLG.EQ.1) SPAV = SPD(2)                                     BIG02390
C     IF(SP3FLG.EQ.1) SPAV = AMIN1(SPD(1),SPD(2))                       BIG02400
```

```
C***ELIMINATE TWO LINES ABOVE                                          BIG02410
C                                                                      BIG02420
C                                                                      BIG02430
      DO 700 IMODE = 4,5                                               BIG02440
      IM = IMODE-3                                                     BIG02450
         DO 700 IP = 1,3                                               BIG02460
C                                                                      BIG02470
      IMY1 = CY-19                                                     BIG02480
              DO 700 IMY = IMY1,CY                                     BIG02490
      IMYP = IMY - 50                                                  BIG02500
      IF(IMYP.LT.1) IMYP=1                                             BIG02510
C                                                                      BIG02520
              IX = 20-(CY-IMY)                                         BIG02530
C                                                                      BIG02540
          INDX = HDINDX(IMYP,IPEJN)                                    BIG02550
C                                                                      BIG02560
      IF(IP.EQ.3.AND.IMODE.EQ.4) GO TO 720                             BIG02570
C                                                                      BIG02580
      CFRET(IX,IP,IMODE) = EXP(ATR(INDX,IP,IM) +                       BIG02590
     *  BTR(INDX,IP,IM)*SPAV + CTR(INDX,IP,IM)*SPAV*SPAV)              BIG02600
C                                                                      BIG02610
      GO TO 688                                                        BIG02620
720   CONTINUE                                                         BIG02630
C                                                                      BIG02640
      CFRET(IX,IP,IMODE) = ATR(INDX,IP,IM) + BTR(INDX,IP,IM)*SPAV      BIG02650
C                                                                      BIG02660
688   CONTINUE                                                         BIG02670
C                                                                      BIG02680
      IF(TRKFLG.EQ.1) CFRET(IX,IP,IMODE) = CFRET(IX,IP,IMODE)*         BIG02690
     *                                     TRKRET(IX,IP,IM)            BIG02700
C                                                                      BIG02710
700   CONTINUE                                                         BIG02720
      RETURN                                                           BIG02730
C                                                                      BIG02740
C     DEBUG SUBCHK                                                     BIG02750
      END                                                              BIG02760
```

```
      SUBROUTINE INITEX                                                  INX00010
C                                                                        INX00020
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IRDFLG,SP3FLG,NMHFLG,IDLFLG,    INX00030
     *              UNFFLG,MYMRFG,IMFLG,ICEVFG,PRTFLG,IFORM             INX00040
C                                                                        INX00050
      INTEGER ALTFLG,ALHFLG,TRKFLG,SP3FLG,UNFFLG,PRTFLG                  INX00060
C*************************************************************************INX00070
C                                                                        INX00080
      IF (ALTFLG.EQ.1) CALL EFALTX                                       INX00090
C                                                                        INX00100
      CALL BEFGEN                                                        INX00110
C                                                                        INX00120
      CALL CCEVAX                                                        INX00130
C                                                                        INX00140
C                                                                        INX00150
      RETURN                                                             INX00160
C                                                                        INX00170
      END                                                                INX00180
```

```
      SUBROUTINE TFCALX                                                  TFC00010
C                                                                        TFC00020
      COMMON/MYMCOM/MYM,MYR,TF                                           TFC00030
      REAL TFNORM(6),MYM(20,6),MYR(20,6),TF(20,6)                        TFC00040
C                                                                        TFC00050
      DO 850 M = 1,6                                                     TFC00060
         TFNORM(M) = 0.0                                                 TFC00070
         DO 810 I = 1,20                                                 TFC00080
810         TFNORM(M) = TFNORM(M) + MYM(I,M)*MYR(I,M)                    TFC00090
         DO 820 I = 1,20                                                 TFC00100
820         TF(21-I,M) = ( MYM(I,M)*MYR(I,M) )/TFNORM(M)                 TFC00110
C                                                                        TFC00120
850   CONTINUE                                                           TFC00130
C                                                                        TFC00140
      RETURN                                                             TFC00150
C                                                                        TFC00160
C     DEBUG SUBCHK                                                       TFC00170
C                                                                        TFC00180
      END                                                                TFC00190
```

```
      SUBROUTINE SPECLX(SPARA,SPBACK)                                   SPE00010
      COMMON/ACOM/A                                                     SPE00020
      REAL SPARA(3),SPBACK(18,3,3),A(6,18,3)                            SPE00030
C                                                                       SPE00040
      DO 30 IP = 1,3                                                    SPE00050
         DO 20 IG = 1,18                                                SPE00060
            IGS = IG                                                    SPE00070
           DO 10 IS = 1,3                                               SPE00080
              SUM = A(6,IGG,IP)                                         SPE00090
              S = SPARA(IS)                                             SPE00100
            DO 5 I = 1,5                                                SPE00110
             SUM = SUM*S + A(I-1,IGG,IP)                                SPE00120
5           CONTINUE                                                    SPE00130
            SCF=EXP(SUM)                                                SPE00140
            IF(IP.EQ.3) SCF=SUM                                         SPE00150
            SPBACK(IG,IS,IP) = SCF                                      SPE00160
10        CONTINUE                                                      SPE00170
20       CONTINUE                                                       SPE00180
30    CONTINUE                                                          SPE00190
      RETURN                                                            SPE00200
C     DEBUG SUBCHK                                                      SPE00210
      END                                                               SPE00220
```

```
      SUBROUTINE BEFGEN                                                 BEF00010
                                                                        BEF00020
C                                                                       BEF00030
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IPDFLG,SP3FLG,NMHFLG,IDLFLG,   BEF00040
     *             UNFFLG,MYMRFG,IMFLG,ICEVFG,PRTFLG,IFORM              BEF00050
      COMMON/REGCOM/IREJN                                               BEF00060
      COMMON/BEFCOM/BEF                                                 BEF00070
      COMMON/BASECM/BASE3R                                              BEF00080
      COMMON/DELCOM/DEL3R                                               BEF00090
      COMMON/IDLBCM/IDLB3R                                              BEF00100
      COMMON/IDLDCM/IDEL3R                                              BEF00110
      COMMON/IDLCOM/IDLBEF                                              BEF00120
      COMMON/INDXCM/INDX3R                                              BEF00130
      COMMON/MYMCOM/MYM,MYR,TF                                          BEF00140
C                                                                       BEF00150
      REAL BASE3R(10,3,6,3),DEL3R(10,3,6,3)                             BEF00160
      REAL IDLB3R(10,3,6,3),IDEL3R(10,3,6,3)                            BEF00170
      REAL BEF(20,26,3,6),IDLBEF(20,26,3,6)                             BEF00180
      REAL CUMMIL(20,6),MYM(20,6),MYR(20,6),TF(20,6),NONMTH(45,6)       BEF00190
                                                                        BEF00200
C                                                                       BEF00210
      INTEGER ALHFLG,TRKFLG,ALTFLG,MSFLG,SP3FLG,                        BEF00220
     *        NMHFLG,IDLFLG,UNFFLG,MYMRFG,PRTFLG                        BEF00230
      INTEGER INDX3R(30,3,6,3),MAXAGE(6)                                BEF00240
C                                                                       BEF00250
      DATA MAXAGE/19,19,19,19,19,19/                                    BEF00260
      DATA NONMTH/                                                      BEF00270
     *            24*.95 , 21*.85 ,                                     BEF00280
     *            24*.95 , 21*.85 ,                                     BEF00290
     *            24*.95 ,  4*.95 , 17*.85 ,                            BEF00300
     *            24*.95 ,  8*.95 , 13*.85 ,                            BEF00310
     *            45*.98 ,                                              BEF00320
     *            45*.95                        /                       BEF00330
C                                                                       BEF00340
C**********************************************************************BEF00350
C                                                                       BEF00360
      CALL GETCUM(CUMMIL)                                               BEF00370
C                                                                       BEF00380
C**********************************************                         BEF00390
C                                                                       BEF00400
      DO 100 IMODE=1,6
C
```

```
            MAX = MAXAGE(IMODE)                                                  BEF00410
C                                                                                BEF00420
          DO 100 ICY = 70,95                                                     BEF00430
          DO 100 IP = 1,3                                                        BEF00440
            IMY1=ICY-19                                                          BEF00450
            IMY20=ICY                                                            BEF00460
            ICYP=ICY-69                                                          BEF00470
C                                                                                BEF00480
          DO 100 MY = IMY1,IMY20                                                 BEF00490
            IMYP =  MY - 50                                                      BEF00500
            IAGE=ICY - MY                                                        BEF00510
C                                                                                BEF00520
          IF(IAGE.GT.MAX) IAGE = MAX                                             BEF00530
C                                                                                BEF00540
            AGE = IAGE                                                           BEF00550
            IA2=ICY-MY+1                                                         BEF00560
            IA3=21-IA2                                                           BEF00570
C                                                                                BEF00580
          IF(MY.LT.66) INDX=1                                                    BEF00590
          IF(MY.GE.66) INDX=INDX3R(MY-65,IP,IMODE,IREJN)                         BEF00600
C                                                                                BEF00610
          VMTAGE = CUMMIL(IAGE+1,IMODE)*.0001                                    BEF00620
C                                                                                BEF00630
          BEF(IA3,ICYP,IP,IMODE) = BASE3R(INDX,IP,IMODE,IREJN) +                 BEF00640
     *                    VMTAGE*DEL3R(INDX,IP,IMODE,IREJN)                    BEF00650
C                                                                                BEF00660
          IDLBEF(IA3,ICYP,IP,IMODE) = IDLB3R(INDX,IP,IMODE,IREJN) +              BEF00670
     *                    VMTAGE*IDEL3R(INDX,IP,IMODE,IREJN)                   BEF00680
C                                                                                BEF00690
  100     CONTINUE                                                               BEF00700
C                                                                                BEF00710
          DO 450 I = 1,20                                                        BEF00720
          DO 450 J = 1,26                                                        BEF00730
          DO 450 IM = 1,6                                                        BEF00740
          IF(NMHFLG.EQ.1) BEF(I,J,1,IM) = BEF(I,J,1,IM)*NONMTH(I*J-1,IM)         BEF00750
  450     CONTINUE                                                               BEF00760
C                                                                                BEF00770
C         DEBUG SUBCHK                                                           BEF00780
C                                                                                BEF00790
          RETURN                                                                 BEF00800
```

```
      END
```

```
      SUBROUTINE GETCUM(CUMMIL)                                          GET00010
C                                                                        GET00020
      COMMON/MYMCOM/MYMDUM,MYR,TF                                        GET00030
C                                                                        GET00040
      REAL CUMMIL(20,6),MYM(20,6),MYMDUM(20,6),MYR(20,6),TF(20,6)        GET00050
      REAL FRAC(4,6)                                                     GET00060
      DATA FRAC/                                                         GET00070
     *            .75 , .375 , .25 , .875 ,                             GET00080
     *            .75 , .375 , .25 , .875 ,                             GET00090
     *            .75 , .375 , .25 , .875 ,                             GET00100
     *            .50 , .25  , .50 , .75  ,                             GET00110
     *            .50 , .25  , .50 , .75  ,                             GET00120
     *            .50 , .25  , .50 , .75    /                           GET00130
C                                                                        GET00140
      DO 10 I1=1,6                                                       GET00150
      DO 10 I2=1,20                                                      GET00160
10    MYM(I2,I1) = MYMDUM(I2,I1)*100000.                                 GET00170
C                                                                        GET00180
      DO 100 IM=1,6                                                      GET00190
         CUMMIL(1,IM)=MYM(1,IM)*FRAC(2,IM)                               GET00200
      DO 90 I=2,20                                                       GET00210
         SUM=0.                                                          GET00220
         SUM2=0.                                                         GET00230
         II=I-1                                                          GET00240
      DO 80 J=1,II                                                       GET00250
80    SUM=SUM+MYM(J,IM)                                                  GET00260
         III=II-1                                                        GET00270
         IF(III.EQ.0) GO TO 74                                           GET00280
      DO 70 L=1,III                                                      GET00290
70    SUM2=SUM2+MYM(L,IM)                                                GET00300
C                                                                        GET00310
74    CONTINUE                                                           GET00320
         T1=SUM+MYM(I,IM)*FRAC(2,IM)                                     GET00330
         T2=SUM2+MYM(II,IM)*FRAC(4,IM)                                   GET00340
         T1=T1*FRAC(1,IM)                                                GET00350
         T2=T2*FRAC(3,IM)                                                GET00360
         TSUM=T1+T2                                                      GET00370
      CUMMIL(I,IM)=TSUM                                                  GET00380
90    CONTINUE                                                           GET00390
100   CONTINUE                                                           GET00400
C
```

```
C
      RETURN
C
C     DEBUG SUBCHK
      END
```

GET00410
GET00420
GET00430
GET00440
GET00450

```
      SUBROUTINE EFALTX                                                  EFA00010
C                                                                        EFA00020
      COMMON/ALTCOM/INTALT(5,100),R4ALT(2,100),MODFLG(100),NEWFAC        EFA00030
      COMMON/INDXCM/INDX3R(30,3,6,3)                                     EFA00040
      COMMON/BASECM/BASE3R(10,3,6,3)                                     EFA00050
      COMMON/DELCOM/DEL3R(10,3,6,3)                                      EFA00060
C                                                                        EFA00070
      INTEGER MAXIND(3,6,3)                                              EFA00080
C                                                                        EFA00090
      DO 10 IR=1,3                                                       EFA00100
      DO 10 IM=1,6                                                       EFA00110
      DO 10 IP=1,3                                                       EFA00120
10    MAXIND(IP,IM,IR)=INDX3R(IP,IP,IM,IR)                               EFA00130
C                                                                        EFA00140
      DO 20 IMOD=1,100                                                   EFA00150
20    MODFLG(IMOD) = 0                                                   EFA00160
C                                                                        EFA00170
      DO 100 IFAC = 1,NEWFAC                                             EFA00180
        IREG   = INTALT(1,IFAC)                                          EFA00190
        IMOD   = INTALT(2,IFAC)                                          EFA00200
        IPOL   = INTALT(3,IFAC)                                          EFA00210
        MYFRST = INTALT(4,IFAC)                                          EFA00220
        MYLAST = INTALT(5,IFAC)                                          EFA00230
      MAXOLD = MAXIND(IPOL,IMOD,IREG)                                    EFA00240
      IF(MAXOLD.GE.10) GO TO 100                                         EFA00250
      NEWMAX = MAXOLD + 1                                                EFA00260
      MAXIND(IPOL,IMOD,IREG) = NEWMAX                                    EFA00270
C                                                                        EFA00280
        DO 50 IMY = MYFRST,MYLAST                                        EFA00290
          MY = IMY - 65                                                  EFA00300
50      INDX3R(MY,IPOL,IMOD,IREG) = NEWMAX                               EFA00310
C                                                                        EFA00320
      BASE3R(NEWMAX,IPOL,IMOD,IREG) = R4ALT(1,IFAC)                      EFA00330
      DEL3R(NEWMAX,IPOL,IMOD,IREG)  = R4ALT(2,IFAC)                      EFA00340
C                                                                        EFA00350
      MODFLG(IFAC) = 1                                                   EFA00360
C                                                                        EFA00370
100   CONTINUE                                                           EFA00380
C                                                                        EFA00390
      RETURN                                                             EFA00400
```

```
C                                                                       EFA00410
C     DEBUG SUBCHK                                                      EFA00420
C                                                                       EFA00430
      END                                                               EFA00440
```

```
      SUBROUTINE CCEVAX                                                      CCE00010
                                                                             CCE00020
C                                                                            CCE00030
      COMMON/CEVCOM/CCEVRT                                                   CCE00040
      COMMON/REGCOM/IREJN                                                    CCE00050
                                                                             CCE00060
C                                                                            CCE00070
      INTEGER CY , MY                                                        CCE00080
      REAL CCEV(45,6,3),CCEVRT(45,6),LDGSWD(45),CCCAL(45,4,3)                CCE00090
C     DATA LDGSWD/17*.80,.77,.77,3*.74,2*.72,21*.55/                         CCE00100
C                                                                            CCE00110
      DATA CCEV/12*6.63,5*3.33,3*2.53,7*1.76,2*0.60,16*0.15,                 CCE00120
     *          12*6.63,5*3.33,3*2.53,7*1.76,2*0.60,16*0.15,                 CCE00130
     *          17*7.70,11*2.53,1*0.60,16*0.15,                              CCE00140
     *          17*7.70,13*2.00,15*0.30,                                     CCE00150
     *          45*0.,                                                       CCE00160
     *          27*1.60,18*0.,                                               CCE00170
     *                                                                       CCE00180
     *          10*6.63,3*3.33,7*2.53,7*1.76,2*0.60,16*0.15,                 CCE00190
     *          10*6.63,3*3.33,7*2.53,7*1.76,2*0.60,16*0.15,                 CCE00200
     *          17*7.70,10*2.53,2*0.60,16*0.15,                              CCE00210
     *          17*7.70,7*2.00,2*1.19,3*0.87,16*0.30,                        CCE00220
     *          45*0.,                                                       CCE00230
     *          27*1.60,18*0.,                                               CCE00240
     *                                                                       CCE00250
     *          12*9.00,5*4.52,3*3.44,6*2.39,1*1.76,2*0.81,4*.2,12*.15,      CCE00260
     *          12*9.00,5*4.52,3*3.44,6*2.39,1*1.76,2*0.81,4*.2,12*.15,      CCE00270
     *          17*10.46,9*2.72,2.00,2.72,0.81,4*0.20,12*0.15,               CCE00280
     *          17*10.46,16*2.72,12*0.30,                                    CCE00290
     *          45*0.,                                                       CCE00300
     *          27*2.17,18*0.       /                                        CCE00310
C                                                                            CCE00320
C                                                                            CCE00330
      DO 100 IMODE = 1,6                                                     CCE00340
      DO 90 MY = 1,45                                                        CCE00350
C                                                                            CCE00360
      CCEVRT(MY,IMODE) = CCEV(MY,IMODE,IREJN)                                CCE00370
C                                                                            CCE00380
90    CONTINUE                                                               CCE00390
100   CONTINUE                                                               CCE00400
C
C
```

```
      RETURN                                                    CCE00410
C     DEBUG SUBCHK                                              CCE00420
      END                                                       CCE00430
```

```
      SUBROUTINE LDVIMX                                                  LDV00010
C                                                                        LDV00070
      COMMON/REFCOM/REF(20,26,3,6)                                       LDV00070
      COMMON/IMCOM/ICYIM,ISTRN,IMTFLG,MODYR1,MODYR2                      LDV00040
      COMMON/IMCRED/PCIM                                                 LDV00050
C                                                                        LDV00060
      INTEGER CY,CYP,CYIMP,CYIP1,DELY,DEL2,DEL                           LDV00070
      INTEGER PCIM(19,5,4,2,2)                                           LDV00080
C** IN PCIM: DEL,ISTRIN,ITECH,IPROGM,IPOL                                LDV00090
C                                                                        LDV00100
C*************************************************************************LDV00110
C                                                                        LDV00120
      IPROGM = 1 + IMTFLG                                                LDV00130
C     ISTRIN = .1*ISTRN                                                  LDV00140
      IF(ISTRN.LT.10.OR.ISTRN.GT.50) STOP                                LDV00150
      IREM = ISTRN - (ISTRN/10)*10                                       LDV00160
      REM=IREM*.1                                                        LDV00170
C     ISTRIN = ISTRN*.1                                                  LDV00180
      STRN = (ISTRN + 0.5)*0.1                                           LDV00190
      ISTRIN = STRN                                                      LDV00200
      CYIMP = ICYIM                                                      LDV00210
      CYIP1 = ICYIM + 1                                                  LDV00220
C                                                                        LDV00230
      DO 100 IPOL=1,2                                                    LDV00240
      DO 100 CY = CYIP1,95                                               LDV00250
C                                                                        LDV00260
           CYP = CY-69                                                   LDV00270
           DELY = CY - CYIMP                                             LDV00280
C                                                                        LDV00290
      DO 90 I = 1,20                                                     LDV00300
         MY = CY - (20-I)                                                LDV00310
         MYP = MY - 50                                                   LDV00320
         DEL2 = MY - CYIMP                                               LDV00330
C                                                                        LDV00340
      IF(MY.LT.MODYR1.OR.MY.GT.MODYR2) GO TO 90                          LDV00350
C                                                                        LDV00360
      IF(MY.LE.CYIMP) DEL = DELY                                         LDV00370
      IF(MY.GT.CYIMP) DEL = DELY - DEL2                                  LDV00380
      IF(DEL.GT.19) DEL = 19                                             LDV00390
C                                                                        LDV00400
```

```
C*TEST FOR TECH. I, II, III, OR IV                                        LDV00410
      IF(MY.LT.75) ITECH = 1                                              LDV00420
      IF(MY.GE.75.AND.MY.LE.79) ITECH = 2                                 LDV00430
      IF(MY.EQ.80) ITECH = 3                                              LDV00440
      IF(MY.GE.81) ITECH = 4                                              LDV00450
C                                                                         LDV00460
      IF(DEL.EQ.0) PCRED = 0.0                                            LDV00470
      IF(DEL.GT.0.AND.ISTRIN.LT.5)                                        LDV00480
     * PCRED = PCIM(DEL,ISTRIN,ITECH,IPROGM,IPOL)*.01                     LDV00490
     *   + REM*(PCIM(DEL,ISTRIN+1,ITECH,IPROGM,IPOL) -                    LDV00500
     *          PCIM(DEL,ISTRIN,ITECH,IPROGM,IPOL) )*.01                  LDV00510
C                                                                         LDV00520
      IF(DEL.GT.0.AND.ISTRIN.EQ.5)                                        LDV00530
     * PCRED = PCIM(DEL,ISTRIN,ITECH,IPROGM,IPOL)*.01                     LDV00540
C                                                                         LDV00550
C*PERHAPS SKIP FOR LDT?                                                   LDV00560
      PCLEFT = 1. - PCRED                                                 LDV00570
C                                                                         LDV00580
      BEF(I,CYP,IPOL,1) = BEF(I,CYP,IPOL,1)*PCLEFT                        LDV00590
C                                                                         LDV00600
90    CONTINUE                                                            LDV00610
100   CONTINUE                                                            LDV00620
C                                                                         LDV00630
      RETURN                                                              LDV00640
C                                                                         LDV00650
C     DEBUG SUBCHK                                                        LDV00660
C                                                                         LDV00670
      END                                                                 LDV00680
```

```
      SUBROUTINE ALUH(CY,AC,XLOAD,TRAILR,PCCO,PCCC,ABSHUM)                  ALU00010
C                                                                           ALU00020
      COMMON/RET1/ALHRET(20,4,3)                                            ALU00030
C                                                                           ALU00040
      INTEGER CY                                                            ALU00050
      REAL XLOAD(3)                                                         ALU00060
      REAL PCW(20)                                                          ALU00070
      REAL A(20,3,3),U(20,3,3),L(3,3),H(3)                                  ALU00080
      REAL TCFA(3),TCFB(3),TCFC(3)                                          ALU00090
      REAL CFLD(3)                                                          ALU00100
      REAL ACCF(3),PCWAC(45)                                                ALU00110
C                                                                           ALU00120
      DATA ACCF/1.13,1.18,1.18/                                             ALU00130
      DATA CFLD/1.06,1.20,1.03/                                             ALU00140
      DATA PCWAC/15*.54,3*.66,4*.75,3*.81,20*.81/                           ALU00150
      DATA TCFA/1.32,2.15,1.16/,TCFB/.75,1.55,1.28/,TCFC/.43,.39,.92/       ALU00160
C   IN TCFA ABOVE, 2ND VALUE SHOULD BE 2.15..IT IS 1.15 FOR ORE. CF.        ALU00170
C                                                                           ALU00180
      PCCOLD=PCCC*.01                                                       ALU00190
C                                                                           ALU00200
      DO 207 IP=1,3                                                         ALU00210
      H(IP)=1.                                                              ALU00220
      DO 207 IM=1,3                                                         ALU00230
      L(IP,IM)=1.                                                           ALU00240
      DO 207 IT=1,20                                                        ALU00250
      A(IT,IP,IM)=1.                                                        ALU00260
      U(IT,IP,IM)=1.                                                        ALU00270
      ALHRET(IT,4,IP) = 1.                                                  ALU00280
207   CONTINUE                                                              ALU00290
C                                                                           ALU00300
      DO 500 IP = 1,3                                                       ALU00310
C                                                                           ALU00320
      DO 400 IMODE=1,3                                                      ALU00330
C                                                                           ALU00340
      IF(IMODE.EQ.3) GO TO 15                                               ALU00350
C*****A:  AIR CONDITIONING CORRECTION FACTOR                                 ALU00360
      DO 90 I=1,20                                                          ALU00370
      IMY = CY - (20-I) - 50                                                ALU00380
      PCW(I)=PCWAC(IMY)                                                     ALU00390
      A(I,IMODE,IP) = AC*PCWAC(IMY)*(ACCF(IP)-1.) + 1.0                     ALU00400
```

```
90    CONTINUE                                                          ALU00410
C                                                                       ALU00420
      IF(IMODE.EQ.2) GO TO 15                                           ALU00430
C*****U:  TRAILER TOWING CORRECTION FACTOR                             ALU00440
      DO 91 I=1,20                                                      ALU00450
      IMY=CY-(20-I)-50                                                  ALU00460
      IF(IMY.GT.24) GO TO 77                                            ALU00470
      CFA=TCFA(IP)                                                      ALU00480
      GO TO 78                                                          ALU00490
77    CONTINUE                                                          ALU00500
      CFA=(PCCOLD*TCFA(IP) + (1.-PCCOLD)*TCFB(IP))/                     ALU00510
     *           (PCCOLD + (1.-PCCOLD)*TCFC(IP))                        ALU00520
78    CONTINUE                                                          ALU00530
C                                                                       ALU00540
      U(I,IMODE,IP) = TRAILR*(CFA-1.) + 1.0                             ALU00550
C                                                                       ALU00560
91    CONTINUE                                                          ALU00570
C                                                                       ALU00580
C                                                                       ALU00590
15    CONTINUE                                                          ALU00600
C*****L:  ADDITIONAL LOADING CORRECTION FACTOR                         ALU00610
      L(IMODE,IP) = XLOAD(IMODE)*(CFLD(IF)-1.) + 1.                     ALU00620
C                                                                       ALU00630
400   CONTINUE                                                          ALU00640
500   CONTINUE                                                          ALU00650
C*****H:  HUMIDITY CORRECTION FACTOR                                   ALU00660
      DO 675 IMODE=1,3                                                  ALU00670
      H(IMODE) = 1. - .0047*(ABSHUM - 75.)                              ALU00680
675   CONTINUE                                                          ALU00690
C                                                                       ALU00700
C                                                                       ALU00710
      DO 800 IP=1,3                                                     ALU00720
      DO 800 IMODE=1,3                                                  ALU00730
      DO 800 IY=1,20                                                    ALU00740
      ALHTMP = A(IY,IMODE,IP)*U(IY,IMODE,IP)*L(IMODE,IP)                ALU00750
      IF(IP.EQ.3) ALHTMP = ALHTMP*H(IMODE)                              ALU00760
      ALHRET(IY,IMODE,IP) = ALHTMP                                      ALU00770
800   CONTINUE                                                          ALU00780
C                                                                       ALU00790
      RETURN                                                            ALU00800
```

```
      C     DEBUG SUBCHK                                              ALU00810
            END                                                       ALU00820
```

```
      SUBROUTINE TRKOPC(CY,HGWGT,HDWGT,HGCID,HDCID)                          TRK00010
C                                                                            TRK00020
      COMMON/RET2/TRKRET(20,3,2)                                             TRK00030
      INTEGER CY,INDXAR(45)                                                  TRK00040
C** IN B0,B1,AND B2, 1ST INDEX IS YEAR GROUP, 2ND IS VEHTYPE,3RD IS POL      TRK00050
      REAL B0(3,2,3),B1(3,2,3),B2(3,2,3)                                     TRK00060
C                                                                            TRK00070
      DATA B0/1.302,-.584,.762,2.058,2.058,.893,                             TRK00080
     *        .814,.354,.320,-.533,-.533,-.299,                             TRK00090
     *        .869,.883,.943,.085,.085,.138     /                           TRK00100
C                                                                            TRK00110
      DATA B1/.177,.124,.131,-.005,-.005,.015,                               TRK00120
     *        -.036,.106,.149,-.03,-.03,.03,                                TRK00130
     *        .172,.016,.008,.02,.02,.023       /                           TRK00140
C                                                                            TRK00150
      DATA B2/-.065,-.01,-.047,-.014,-.014,-.006,                            TRK00160
     *        .016,-.024,-.045,.043,.043,.003,                              TRK00170
     *        -.054,-.003,-.012,.002,.002,.001  /                           TRK00180
C                                                                            TRK00190
      DATA INDXAR/19*1,4*2,22*3/                                             TRK00200
C                                                                            TRK00210
      DO 100 IMY=1,20                                                        TRK00220
         MY = CY - (20-IMY) - 50                                             TRK00230
         IX=INDXAR(MY)                                                       TRK00240
C                                                                            TRK00250
      DO 100 IPOL = 1,3                                                      TRK00260
C                                                                            TRK00270
      TRKRET(IMY,IPOL,1) = B0(IX,1,IPOL) + B1(IX,1,IPOL)*HGWGT*.001 +        TRK00280
     *                     B2(IX,1,IPOL)*HGWGT/HGCID                       TRK00290
C                                                                            TRK00300
      TRKRET(IMY,IPOL,2) = B0(IX,2,IPOL) + B1(IX,2,IPOL)*HDWGT*.001 +        TRK00310
     *                     B2(IX,2,IPOL)*HDWGT/HDCID                       TRK00320
C                                                                            TRK00330
100   CONTINUE                                                               TRK00340
C                                                                            TRK00350
      RETURN                                                                 TRK00360
C     DEBUG SUBCHK                                                           TRK00370
      END                                                                    TRK00380
```

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```
      BLOCK DATA                                                        BL100010
C                                                                       BL100020
      COMMON/ACOM/AIN1,AIN2,AIN3                                        BL100030
C                                                                       BL100040
      REAL AIN1(6,18),AIN2(6,18),AIN3(6,18)                             BL100050
C                                                                       BL100060
C**HC SPEED CORRECTION FACTOR COEFFICIENTS                              BL100070
      DATA AIN1/                                                        BL100080
     *2.2461,-.29097,0.015889,-.47749E-03,0.69409E-05,-.39280E-07,      BL100090
     *2.3103,-.28957,0.015299,-.44669E-03,0.64818E-05,-.36346E-07,      BL100100
     *2.1656,-.26999,0.014420,-.43764E-03,0.65074E-05,-.37810E-07,      BL100110
     *2.3973,-.29998,0.016135,-.48749E-03,0.72009E-05,-.41977E-07,      BL100120
     *2.4087,-.30819,0.016817,-.50684E-03,0.75385E-05,-.43160E-07,      BL100130
     *2.2322,-.28499,0.015383,-.45674E-03,0.67349E-05,-.38380E-07,      BL100140
     *2.2522,-.28778,0.015582,-.47318E-03,0.70795E-05,-.40846E-07,      BL100150
     *2.0278,-.27305,0.015360,-.46030E-03,0.67853E-05,-.38488E-07,      BL100160
     *2.1506,-.28362,0.015380,-.44214E-03,0.62973E-05,-.34631E-07,      BL100170
     *2.2302,-.29365,0.016240,-.48415E-03,0.71159E-05,-.40286E-07,      BL100180
     *2.1223,-.29107,0.016910,-.52615E-03,0.80271E-05,-.47012E-07,      BL100190
     *2.1536,-.28345,0.015700,-.46976E-03,0.69387E-05,-.39471E-07,      BL100200
     *2.0735,-.28975,0.017300,-.55471E-03,0.86420E-05,-.51311E-07,      BL100210
     *2.3495,-.30496,0.016842,-.50962E-03,0.75952E-05,-.43496E-07,      BL100220
     *2.1134,-.28568,0.016320,-.50079E-03,0.75507E-05,-.43719E-07,      BL100230
     *2.1194,-.29863,0.018450,-.61654E-03,0.93206E-05,-.60402E-07,      BL100240
     *2.6838,-.34463,0.019542,-.62572E-03,0.87844E-05,-.58337E-07,      BL100250
     *2.3954,-.33578,0.021161,-.73155E-03,0.12072E-04,-.74857E-07/      BL100260
C                                                                       BL100270
C**CO SPEED CORRECTION FACTOR COEFFICIENTS                              BL100280
      DATA AIN2/                                                        BL100290
     *  1.8198,-.25466,.015235,-.48740E-03,.75821E-05,-.44951E-07,      BL100300
     *  2.3399,-.29698,.016007,-.47740E-03,.70675E-05,-.40398E-07,      BL100310
     *  2.4415,-.29147,.014296,-.38785E-03,.52978E-05,-.28244E-07,      BL100320
     *  2.4655,-.30502,.016050,-.47397E-03,.69908E-05,-.39976E-07,      BL100330
     *  2.7780,-.31913,.015318,-.42233E-03,.58495E-05,-.31497E-07,      BL100340
     *  2.7890,-.32711,.016294,-.46757E-03,.67191E-05,-.37440E-07,      BL100350
     *  2.7074,-.33131,.017618,-.53858E-03,.81740E-05,-.47780E-07,      BL100360
     *  1.8692,-.27668,.017273,-.55828E-03,.87168E-05,-.51698E-07,      BL100370
     *  1.8213,-.27205,.017030,-.55202E-03,.86254E-05,-.51144E-07,      BL100380
     *  2.0142,-.29519,.018675,-.62161E-03,.99766E-05,-.59978E-07,      BL100390
     *  2.0453,-.31062,.020485,-.70853E-03,.11621E-04,-.71569E-07,      BL100400
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     *  2.3187,-.34115,.020945,-.66589E-03,.10227E-04,-.59827E-07,      BL100410
     *  2.5752,-.32889,.018975,-.62826E-03,.10092E-04,-.61273E-07,      BL100420
     *  2.6845,-.33282,.017628,-.52412E-03,.77222E-05,-.43702E-07,      BL100430
     *  2.1549,-.32912,.021011,-.68906E-03,.10839E-04,-.64712E-07,      BL100440
     *  2.5456,-.36285,.023277,-.81504E-03,.13623E-04,-.85591E-07,      BL100450
     *  2.8393,-.36876,.021078,-.67644E-03,.10627E-04,-.63641E-07,      BL100460
     *  2.4875,-.39156,.027072,-.97618E-03,.16527E-04,-1.0437E-07/      BL100470
C                                                                       BL100480
C**NOX SPEED CORRECTION FACTOR COEFFICIENTS                             BL100490
      DATA AIN3/                                                        BL100500
     *  2.4442,-.250110,1.3829E-02,-.28703E-03,.2075PE-05,0.0,          BL100510
     *  1.6863,-.118300,.65497E-02,-.17714E-03,.10085E-05,0.0,          BL100520
     *  1.1265,-.079340,.26864E-02,-.60802E-04,.47729E-06,0.0,          BL100530
     *  1.2268,-.044498,.26248E-02,-.56715E-04,.43429E-06,0.0,          BL100540
     *  1.0174,-.011896,.91437E-03,-.21574E-04,.18230E-06,0.0,          BL100550
     *  .98760,-.019567,.16964E-02,-.40400E-04,.32PDOE-06,0.0,          BL100560
     *  1.1592,-.044454,.29643E-02,-.66859E-04,.52236E-06,0.0,          BL100570
     *  1.8866,-.161290,.90499E-02,-.18561E-03,.13256E-05,0.0,          BL100580
     *  1.5578,-.113030,.67193E-02,-.14341E-03,.10608E-05,0.0,          BL100590
     *  2.0452,-.194010,.11074E-01,-.23175E-03,.16837E-05,0.0,          BL100600
     *  1.6326,-.121860,.70302E-02,-.14629E-03,.10614E-05,0.0,          BL100610
     *  1.4482,-.122440,.79502E-02,-.17108E-03,.12578E-05,0.0,          BL100620
     *  .24597,.084195,-.34084E-02,.62988E-04,-.41397E-06,0.0,          BL100630
     *  1.2817,-.080487,.53574E-02,-.11889E-03,.90106E-06,0.0,          BL100640
     *  1.5345,-.125670,.78592E-02,-.16943E-03,.12549E-05,0.0,          BL100650
     *  .70481,.038153,-.17391E-02,.32614E-04,-.20385E-06,0.0,          BL100660
     *  .78384,.32855E-03,.10603E-02,-.31935E-04,.29039E-06,0.0,        BL100670
     *  .94213,-.042324,.38625E-02,-.93985E-04,.75388E-06,0.0  /        BL100680
                                                                        BL100690
C                                                                       BL100700
      END
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      BLOCK DATA                                                        BL200010
C                                                                       BL200020
      COMMON/MYMCOM/MYM,MYR,TF                                          BL200030
      COMMON/LNKCOM/SPD,TEMP,PCCO,PCHS,PCCC,MS                          BL200040
C                                                                       BL200050
      REAL SPD(3),MS(6),MYM(20,6),MYR(20,6),TF(20,6)                    BL200060
C                                                                       BL200070
C**DEFAULT MODAL SPLIT                                                  BL200080
      DATA MS/.803,.058,.058,.045,.031,.005/                            BL200090
C                                                                       BL200100
C**ANNUAL AVERAGE MILEAGE ACCUMULATION (DIVIDED BY 100000)              BL200110
      DATA MYM/                                                         BL200120
     *0.159,0.150,0.140,0.131,0.122,0.113,0.103,0.094,0.085,0.076,      BL200130
     *0.067,0.066,0.062,0.059,0.055,0.051,0.050,0.047,0.044,0.044,      BL200140
     *0.159,0.150,0.140,0.131,0.122,0.113,0.103,0.094,0.085,0.076,      BL200150
     *0.067,0.066,0.062,0.059,0.055,0.051,0.050,0.047,0.044,0.044,      BL200160
     *0.157,0.157,0.141,0.126,0.113,0.103,0.094,0.086,0.080,0.075,      BL200170
     *0.071,0.066,0.063,0.060,0.055,0.053,0.050,0.047,0.044,0.041,      BL200180
     *0.190,0.190,0.179,0.165,0.150,0.135,0.120,0.106,0.095,0.086,      BL200190
     *0.078,0.070,0.067,0.059,0.053,0.049,0.047,0.046,0.044,0.042,      BL200200
     *0.736,0.736,0.699,0.633,0.566,0.500,0.456,0.412,0.382,0.360,      BL200210
     *0.346,0.338,0.331,0.324,0.309,0.287,0.257,0.217,0.184,0.154,      BL200220
     *.0201,.0251,.0207,.0185,.0172,.0162,.0155,.0149,.0143,.0139,      BL200230
     *.0135,.0132,.0129,.0127,.0125,.0123,.0122,.0121,.0120,.0119/      BL200240
C                                                                       BL200250
C**VEHICLE REGISTRATION DISTRIBUTIONS                                   BL200260
      DATA MYR/                                                         BL200270
     *0.075,0.107,0.107,0.106,0.100,0.092,0.085,0.077,0.066,0.052,      BL200280
     *0.039,0.027,0.018,0.014,0.009,0.006,0.005,0.005,0.005,0.004,      BL200290
     *0.061,0.095,0.094,0.103,0.083,0.076,0.076,0.063,0.054,0.043,      BL200300
     *0.036,0.024,0.030,0.029,0.026,0.024,0.022,0.020,0.018,0.016,      BL200310
     *0.037,0.070,0.078,0.086,0.075,0.075,0.075,0.069,0.059,0.053,      BL200320
     *0.044,0.032,0.038,0.036,0.034,0.032,0.030,0.028,0.026,0.024,      BL200330
     *0.037,0.070,0.078,0.086,0.075,0.075,0.075,0.069,0.059,0.053,      BL200340
     *0.044,0.032,0.038,0.036,0.034,0.032,0.030,0.028,0.026,0.024,      BL200350
     *0.077,0.135,0.134,0.131,0.099,0.090,0.082,0.062,0.045,0.033,      BL200360
     *0.025,0.015,0.013,0.011,0.010,0.008,0.007,0.006,0.005,0.004,      BL200370
     *0.105,0.225,0.206,0.149,0.097,0.063,0.046,0.033,0.029,0.023,      BL200380
     *0.008,0.005,0.013,0.0   ,0.0   ,0.0   ,0.0   ,0.0   ,0.0   ,0.0   /  BL200390
C                                                                       BL200400
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      END
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PL200410

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      BLOCK DATA                                                        BL300010
C                                                                       BL300020
      COMMON/INDXCM/INDX49,INDXCA,INDXHI                                BL300030
      COMMON/BASECM/BASE49,BASECA,BASEHI                                BL300040
      COMMON/DELCOM/ DEL49, DELCA, DELHI                                BL300050
C                                                                       BL300060
      INTEGER INDX49(30,3,6),INDXCA(30,3,6),INDXHI(30,3,6)              BL300070
      REAL BASE49(10,3,6),BASECA(10,3,6),BASEHI(10,3,6)                 BL300080
      REAL DEL49 (10,3,6),DELCA (10,3,6),DELHI (10,3,6)                 BL300090
C                                                                       BL300100
C     6 6 6 6 7 7 7 7 7 7 7 7 7 7 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9       BL300110
C     6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5       BL300120
      DATA INDX49/                                                      BL300130
     *1,1,2,2,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,      BL300140
     *1,1,2,2,2,2,2,2,2,2,3,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,5,5,      BL300150
     *1,1,2,2,2,2,2,2,3,3,4,4,5,5,5,5,6,6,6,6,6,6,6,6,6,6,6,6,6,6,      BL300160
     *1,1,2,2,2,2,2,2,2,2,3,3,3,3,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,5,      BL300170
     *1,1,2,2,2,2,2,2,2,2,3,3,3,3,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,5,      BL300180
     *1,1,2,2,2,2,2,2,3,3,4,4,4,4,5,5,5,5,5,5,6,6,6,6,6,6,6,6,6,6,      BL300190
     *1,1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,      BL300200
     *1,1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,      BL300210
     *1,1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,      BL300220
     *1,1,1,1,2,2,2,2,3,3,3,3,3,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,5,5,      BL300230
     *1,1,1,1,2,2,2,2,2,3,3,3,3,3,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,5,      BL300240
     *1,1,1,1,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,      BL300250
     *1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,      BL300260
     *1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,      BL300270
     *1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,      BL300280
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,2,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,      BL300290
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,      BL300300
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4 /     BL300310
C                                                                       BL300320
C     6 6 6 6 7 7 7 7 7 7 7 7 7 7 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9       BL300330
C     6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5       BL300340
      DATA INDXCA/                                                      BL300350
     *2,2,2,2,2,2,2,2,2,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,      BL300360
     *2,2,2,2,2,2,2,2,2,3,3,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,      BL300370
     *2,2,2,2,2,2,2,2,3,3,4,4,5,5,5,6,7,7,7,7,7,7,7,7,7,7,7,7,7,7,      BL300380
     *1,1,2,2,2,2,2,2,2,2,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,      BL300390
     *1,1,2,2,2,2,2,2,2,2,3,3,3,4,5,5,6,6,6,6,6,6,6,6,6,6,6,6,6,6,      BL300400
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     *1,1,2,2,2,2,2,2,3,3,4,4,4,4,5,5,6,6,7,7,7,7,7,7,7,7,7,7,7,7,7,  BL300410
     *1,1,1,2,2,2,2,2,2,2,2,2,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300420
     *1,1,1,2,2,2,2,2,2,2,2,2,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300430
     *1,1,1,2,2,2,2,2,2,2,2,2,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300440
     *1,1,1,2,2,2,2,2,3,3,4,4,5,5,5,6,6,6,7,7,7,7,7,7,7,7,7,7,7,7,7,  BL300450
     *1,1,1,2,2,2,2,2,3,3,4,4,5,5,5,5,5,5,6,6,6,6,6,6,6,6,6,6,6,6,6,  BL300460
     *1,1,1,2,2,2,2,2,3,3,4,4,5,5,5,6,6,6,6,6,7,7,7,7,7,7,7,7,7,7,7,  BL300470
     *1,1,1,1,1,1,1,2,2,2,2,3,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300480
     *1,1,1,1,1,1,1,2,2,2,2,3,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300490
     *1,1,1,1,1,1,1,2,2,2,2,3,3,3,4,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,5,  BL300500
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,5,5,  BL300510
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300520
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4 /   BL300530
C                                                                      BL300540
C      6 6 6 6 7 7 7 7 7 7 7 7 7 7 8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9     BL300550
C      6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5     BL300560
       DATA INDXHI/                                                    BL300570
     *1,1,2,2,2,2,2,2,2,3,3,4,5,5,6,7,7,7,8,8,8,8,8,8,8,8,8,8,8,8,8,  BL300580
     *1,1,2,2,2,2,2,2,2,3,3,4,5,5,6,7,7,7,8,8,8,8,8,8,8,8,8,8,8,8,8,  BL300590
     *1,1,2,2,2,2,2,2,3,3,4,4,5,6,6,7,8,8,8,9,9,9,9,9,9,9,9,9,9,9,9,  BL300600
     *1,1,2,2,2,2,2,2,2,2,3,3,4,5,6,6,6,6,7,8,8,8,8,8,8,8,8,8,8,8,8,  BL300610
     *1,1,2,2,2,2,2,2,2,2,3,3,4,5,6,6,6,6,7,8,8,8,8,8,8,8,8,8,8,8,8,  BL300620
     *1,1,2,2,2,2,2,2,3,3,4,4,5,6,7,7,7,7,7,9,9,9,9,9,9,9,9,9,9,9,9,  BL300630
     *1,1,1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,  BL300640
     *1,1,1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,  BL300650
     *1,1,1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,  BL300660
     *1,1,1,1,1,2,2,2,2,3,3,3,3,3,4,4,4,4,5,6,6,6,6,6,6,6,6,6,6,6,6,  BL300670
     *1,1,1,1,1,2,2,2,2,3,3,3,3,3,4,4,4,4,5,6,6,6,6,6,6,6,6,6,6,6,6,  BL300680
     *1,1,1,1,1,2,2,2,2,3,3,3,3,3,4,4,4,4,4,5,6,6,6,6,6,6,6,6,6,6,6,  BL300690
     *1,1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,  BL300700
     *1,1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,  BL300710
     *1,1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,  BL300720
     *1,1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,  BL300730
     *1,1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,  BL300740
     *1,1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5 /  BL300750
C                                                                      BL300760
C**EXHAUST EMISSION FACTOR INTERCEPT: 49 STATE                         BL300770
       DATA BASE49/                                                    BL300780
     *  4.45,  2.43,  1.13,  0.13,  0.13,  0.13, 0.0 , 0.0 , 0.0 , C.0 ,BL300790
     * 68.30, 31.14, 18.60,  3.00,  1.40,  1.40, 0.0 , 0.0 , 0.0 , C.0 ,BL300800
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     *  3.58,  4.47,  2.98,  2.42,  1.50,  0.29,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300810
     *  4.45,  2.47,  1.11,  0.94,  0.31,  0.31,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300820
     * 68.30, 31.14, 16.10, 14.50,  3.87,  3.87,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300830
     *  3.58,  4.47,  2.98,  2.45,  1.73,  0.41,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300840
     *  5.99,  2.90,  0.94,  0.31,  0.31,  0.31,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300850
     * 78.70, 32.40, 14.50,  3.87,  3.87,  3.87,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300860
     *  6.49,  5.04,  1.73,  0.41,  0.41,  0.41,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300870
     * 23.90, 18.54, 22.02,  5.22,  1.46,  1.46,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300880
     *272.90,212.70,218.80,191.90, 15.38, 15.38,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300890
     *  8.80, 12.80, 10.50,  9.10,  3.99,  3.99,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300900
     *  4.30,  4.50,  4.50,  2.85,  2.85,  2.85,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300910
     * 35.10, 27.00, 27.00, 27.00, 27.00, 27.00,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300920
     * 21.40, 20.10, 19.90,  5.35,  5.35,  5.35,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300930
     *  8.96,  4.70,  3.82,  0.29,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300940
     * 34.40, 20.27, 14.86,  2.71,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300950
     *  0.14,  0.28,  0.56,  0.04,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 /BL300960
C                                                                             BL300970
C**EXHAUST EMISSION FACTOR INTERCEPT: CALIFORNIA                              BL300980
      DATA BASECA/                                                            BL300990
     *  4.45,  2.00,  0.29,  0.15,  0.15,  0.15,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301000
     * 68.30, 30.42,  3.80,  3.80,  3.00,  3.00,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301010
     *  3.58,  3.92,  3.12,  1.50,  1.10,  0.29,  0.21,  0.0 ,  0.0 ,  0.0 ,BL301020
     *  4.45,  2.47,  1.11,  0.29,  0.15,  0.15,  0.15,  0.0 ,  0.0 ,  0.0 ,BL301030
     * 68.30, 31.14, 16.10, 13.70,  3.80,  3.80,  3.80,  0.0 ,  0.0 ,  0.0 ,BL301040
     *  3.58,  4.47,  2.98,  1.50,  1.28,  0.54,  0.21,  0.0 ,  0.0 ,  0.0 ,BL301050
     *  5.99,  2.90,  0.29,  0.16,  0.16,  0.16,  0.16,  0.0 ,  0.0 ,  0.0 ,BL301060
     * 78.70, 32.40, 13.70,  3.80,  3.80,  3.80,  3.80,  0.0 ,  0.0 ,  0.0 ,BL301070
     *  6.49,  5.04,  1.73,  0.44,  0.44,  0.44,  0.44,  0.0 ,  0.0 ,  0.0 ,BL301080
     * 23.90, 18.54, 22.02, 18.16,  5.22,  3.50,  1.46,  0.0 ,  0.0 ,  0.0 ,BL301090
     *272.90,212.70,218.80,209.00,191.90, 15.38,15.38,  0.0 ,  0.0 ,  0.0 ,BL301100
     *  8.80, 12.80, 10.50,  7.50,  8.04,  6.20,  3.99,  0.0 ,  0.0 ,  0.0 ,BL301110
     *  4.30,  4.50,  4.50,  2.85,  2.85,  2.85,  2.85,  0.0 ,  0.0 ,  0.0 ,BL301120
     * 35.10, 27.00, 27.00, 27.00, 27.00, 27.00,27.00,  0.0 ,  0.0 ,  0.0 ,BL301130
     * 21.40, 20.10, 18.61, 16.30,  5.35,  5.35,  5.35,  0.0 ,  0.0 ,  0.0 ,BL301140
     *  8.96,  4.70,  3.82,  0.82,  0.29,  0.29,  0.29,  0.29,  0.29,  0.29,BL301150
     * 34.40, 20.27, 14.86,  2.71,  2.71,  2.71,  2.71,  2.71,  2.71,  2.71,BL301160
     *  0.14,  0.28,  0.56,  0.04,  0.04,  0.04,  0.04,  0.04,  0.04,  0.04/BL301170
C                                                                             BL301180
C**EXHAUST EMISSION FACTOR INTERCEPT: HIGH ALTITUDE                           BL301190
      DATA BASEHI/                                                            BL301200
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     *  6.03,  4.07,  1.83,  0.70,  1.83,  0.21,  0.21,  0.13,  0.13,  0.13,PL301210
     *110.04, 76.73, 38.31, 10.30, 38.31,  6.10,  2.88,  1.40,  1.40,  1.40,PL301220
     *  1.96,  3.00,  1.94,  1.50,  1.90,  1.50,  0.93,  0.18,  0.29,  0.29,PL301230
     *  6.03,  4.07,  1.79,  1.11,  1.79,  1.52,  0.47,  0.31,  0.0 ,  0.0 ,PL301240
     *110.04, 76.73, 33.15, 16.10, 33.15, 29.90,  8.00,  3.87,  0.0 ,  0.0 ,PL301250
     *  1.96,  3.00,  1.94,  1.52,  2.45,  1.52,  1.07,  1.73,  0.41,  0.0 ,PL301260
     *  8.12,  4.86,  1.52,  0.47,  0.31,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,PL301270
     *127.30, 79.90, 29.90,  8.00,  3.87,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,PL301280
     *  3.55,  3.41,  1.07,  1.73,  0.41,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,PL301290
     * 32.40, 31.05, 36.77,  8.74,  2.35,  1.46,  0.0 ,  0.0 ,  0.0 ,  0.0 ,PL301300
     *441.50,344.20,353.20,310.90, 31.70, 15.38,  0.0 ,  0.0 ,  0.0 ,  0.0 ,PL301310
     *  4.82,  8.67,  6.84,  5.92,  5.64,  3.99,  0.0 ,  0.0 ,  0.0 ,  0.0 ,PL301320
     *  5.80,  6.10,  6.10,  3.85,  2.85,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,PL301330
     * 56.80, 43.70, 43.70, 43.70, 27.00,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,PL301340
     * 11.80, 13.10, 12.90,  5.35,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,PL301350
     * 12.10,  7.97,  6.38,  0.45,  0.29,  0.29,  0.29,  0.29,  0.29,  0.29,PL301360
     * 47.10, 27.80, 20.40,  5.58,  2.71,  2.71,  2.71,  2.71,  2.71,  2.71,PL301370
     *  0.08,  0.19,  0.36,  0.03,  0.04,  0.04,  0.04,  0.04,  0.04,  0.0/PL301380
C                                                                          PL301390
C** *EXHAUST EMISSION FACTOR SLOPE: 49 STATE                               PL301400
      DATA DEL49/                                                          PL301410
     * 0.58, 0.53, 0.23, 0.23, 0.23, 0.23, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301420
     * 3.06, 6.15, 2.80, 2.30, 2.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301430
     * 0.0 , 0.0 , 0.0 , 0.09, 0.16, 0.22, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301440
     * 0.58, 0.53, 0.41, 0.41, 0.23, 0.23, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301450
     * 3.06, 6.15, 5.34, 5.34, 2.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301460
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.11, 0.22, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301470
     * 0.58, 0.53, 0.41, 0.23, 0.23, 0.23, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301480
     * 3.06, 6.15, 5.34, 2.00, 2.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301490
     * 0.0 , 0.0 , 0.11, 0.22, 0.22, 0.22, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301500
     * 0.58, 0.53, 0.53, 0.57, 1.06, 1.06, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301510
     * 3.06, 6.15, 6.15, 6.15,10.54,10.54, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301520
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.34, 0.34, 0.0 , 0.0 , 0.0 , 0.0 ,        PL301530
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,        PL301540
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,        PL301550
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,        PL301560
     * 1.17, 1.03, 1.03, 0.23, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,        PL301570
     * 1.54, 4.00, 4.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,        PL301580
     * 0.0 , 0.0 , 0.0 , 0.22, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0   /      PL301590
C                                                                          PL301600
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C**EXHAUST EMISSION FACTOR SLOPE: CALIFORNIA                          BL301610
      DATA DELCA/                                                     BL301620
     * 0.58, 0.70, 0.23, 0.27, 0.27, 0.27, 0.0 , 0.0 , 0.0 , 0.0 ,   BL301630
     * 3.06, 6.40, 2.37, 2.33, 2.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 ,   BL301640
     * 0.0 , 0.0 , 0.0 , 0.16, 0.16, 0.22, 0.27, 0.0 , 0.0 , 0.0 ,   BL301650
     * 0.58, 0.53, 0.41, 0.23, 0.27, 0.23, 0.23, 0.0 , 0.0 , 0.0 ,   BL301660
     * 3.06, 6.15, 5.34, 5.34, 2.33, 2.00, 2.00, 0.0 , 0.0 , 0.0 ,   BL301670
     * 0.0 , 0.0 , 0.0 , 0.11, 0.22, 0.22, 0.22, 0.0 , 0.0 , 0.0 ,   BL301680
     * 0.58, 0.53, 0.27, 0.23, 0.23, 0.23, 0.23, 0.0 , 0.0 , 0.0 ,   BL301690
     * 3.06, 6.15, 5.34, 2.00, 2.00, 2.00, 2.00, 0.0 , 0.0 , 0.0 ,   BL301700
     * 0.0 , 0.0 , 0.11, 0.22, 0.22, 0.22, 0.22, 0.0 , 0.0 , 0.0 ,   BL301710
     * 0.58, 0.53, 0.53, 0.53, 0.53, 0.53, 1.06, 0.0 , 0.0 , 0.0 ,   BL301720
     * 3.06, 6.15, 6.15, 6.15, 6.15,10.54,10.54, 0.0 , 0.0 , 0.0 ,   BL301730
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.34, 0.0 , 0.0 , 0.0 ,   BL301740
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,   BL301750
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,   BL301760
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,   BL301770
     * 0.58, 0.53, 0.53, 0.23, 0.23, 0.23, 0.23, 0.23, 0.23, 0.23,   BL301780
     * 3.06, 6.15, 6.15, 2.00, 2.00, 2.00, 2.00, 2.00, 2.00, 2.00,   BL301790
     * 0.0 , 0.0 , 0.0 , 0.22, 0.22, 0.22, 0.22, 0.22, 0.22, 0.22 /  BL301800
C                                                                     BL301810
C**EXHAUST EMISSION FACTOR SLOPE: HIGH ALTITUDE                       BL301820
      DATA DELHI/                                                     BL301830
     * 0.55, 0.55, 0.23, 0.23, 0.27, 0.27, 0.27, 0.23, 0.23, 0.27,   BL301840
     * 2.81, 4.24, 2.80, 2.80, 2.80, 2.30, 2.00, 2.00, 2.00, 2.00,   BL301850
     * 0.0 , 0.0 , 0.0 , 0.08, 0.16, 0.16, 0.16, 0.22, 0.22, 0.22,   BL301860
     * 0.55, 0.55, 0.41, 0.41, 0.41, 0.41, 0.23, 0.27, 0.0 , 0.0 ,   BL301870
     * 2.81, 4.24, 5.34, 5.34, 5.34, 5.34, 2.00, 2.00, 0.0 , 0.0 ,   BL301880
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.11, 0.11, 0.22, 0.0 ,   BL301890
     * 0.55, 0.55, 0.41, 0.23, 0.23, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,   BL301900
     * 2.81, 4.24, 5.34, 2.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,   BL301910
     * 0.0 , 0.0 , 0.11, 0.11, 0.22, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,   BL301920
     * 0.55, 0.55, 0.55, 0.55, 1.06, 1.06, 0.0 , 0.0 , 0.0 , 0.0 ,   BL301930
     * 2.81, 4.24, 4.24, 4.24,10.54,10.54, 0.0 , 0.0 , 0.0 , 0.0 ,   BL301940
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.34, 0.0 , 0.0 , 0.0 , 0.0 ,   BL301950
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,   BL301960
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,   BL301970
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,   BL301980
     * 0.55, 0.55, 0.55, 0.23, 0.23, 0.23, 0.23, 0.23, 0.23, 0.23,   BL301990
     * 2.81, 4.24, 4.24, 2.00, 2.00, 2.00, 2.00, 2.00, 2.00, 2.00,   BL302000
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     * 0.0 , 0.0 , 0.0 , 0.22, 0.22, 0.22, 0.22, 0.22, 0.22, 0.22 /      BL302010
                                                                          BL302020
                                                                          BL302030
C
      END
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      BLOCK DATA                                                        BL400010
                                                                        BL400020
C                                                                       BL400030
      COMMON/IDLBCM/IDLB49,IDLBCA,IDLBHI                                BL400040
      COMMON/IDLDCM/IDEL49,IDELCA,IDELHI                                BL400050
C                                                                       BL400060
      REAL IDLB49(10,3,6),IDLBCA(10,3,6),IDLBHI(10,3,6)                 BL400070
      REAL IDEL49(10,3,6),IDELCA(10,3,6),IDELHI(10,3,6)                 BL400080
C                                                                       BL400090
C***IDLE EMISSION FACTOR INTERCEPT: 49 STATE                            BL400100
      DATA IDLB49/                                                      BL400110
     * 2.01, 0.68, 0.27, 0.03, 0.07, 0.07, 0.0 , 0.0 , 0.0 , 0.0 ,BL400120
     * 16.42, 12.73, 5.43, 0.88, 0.41, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400130
     * 0.16, 0.26, 0.16, 0.36, 0.22, 0.04, 0.2 , 0.0 , 0.0 , 0.0 ,BL400140
     * 2.01, 0.69, 0.28, 0.24, 0.08, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400150
     * 16.42, 12.73, 2.02, 1.82, 0.49, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400160
     * 0.18, 0.26, 0.16, 0.25, 0.18, 0.04, 0.0 , 0.0 , 0.0 , 0.0 ,BL400170
     * 2.93, 1.86, 0.24, 0.08, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400180
     * 17.24, 18.62, 1.82, 0.49, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400190
     * 0.18, 0.27, 0.18, 0.04, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400200
     * 7.85, 0.71, 3.09, 0.73, 0.20, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400210
     * 24.63, 15.70, 21.92, 19.23, 1.54, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400220
     * 0.02, 0.04, 0.02, 0.02, 0.01, 0.01, 0.0 , 0.0 , 0.0 , 0.0 ,BL400230
     * 0.50, 0.40, 0.40, 0.25, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400240
     * 1.32, 0.66, 0.66, 0.66, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400250
     * 1.11, 1.00, 0.99, 0.27, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400260
     * 4.05, 2.12, 1.72, 0.13, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400270
     * 8.27, 4.87, 3.57, 0.65, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400280
     * 0.01, 0.02, 0.04, 0.01, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 /BL400290
C                                                                       BL400300
C***IDLE EMISSION FACTOR INTERCEPT: CALIFORNIA                          BL400310
      DATA IDLBCA/                                                      BL400320
     * 2.01, 0.93, 0.04, 0.02, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400330
     * 16.42, 15.07, 0.18, 0.18, 0.14, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400340
     * 0.16, 0.24, 0.07, 0.11, 0.08, 0.07, 0.02, 0.0 , 0.0 , 0.0 ,BL400350
     * 2.01, 0.69, 0.28, 0.07, 0.04, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400360
     * 16.42, 12.73, 2.02, 1.72, 0.48, 0.48, 0.0 , 0.0 , 0.0 , 0.0 ,BL400370
     * 0.16, 0.26, 0.16, 0.25, 0.21, 0.09, 0.04, 0.0 , 0.0 , 0.0 ,BL400380
     * 2.93, 1.86, 0.07, 0.04, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400390
     * 17.24, 18.62, 1.72, 0.48, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400400
     * 0.18, 0.27, 0.25, 0.09, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
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     *  3.85,  0.71,  3.09,  0.18,  0.05,  0.03,  0.01,  0.0 ,  0.0 ,  0.0 ,BL400410
     * 24.63, 15.70, 21.92,  4.40,  4.04,  0.32,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400420
     *  0.02,  0.04,  0.02,  0.05,  0.05,  0.04,  0.02,  0.0 ,  0.0 ,  0.0 ,BL400430
     *  0.50,  0.40,  0.40,  0.25,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400440
     *  1.32,  0.66,  0.66,  0.66,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400450
     *  1.11,  1.00,  0.93,  0.81,  0.27,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400460
     *  3.46,  1.81,  1.48,  0.32,  0.11,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400470
     * 11.57,  6.82,  5.00,  0.91,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400480
     *  0.01,  0.02,  0.04,  0.01,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 /BL400490
C                                                                             BL400500
C***IDLE EMISSION FACTOR INTERCEPT: HIGH ALTITUDE                             BL400510
      DATA IDLDHI/                                                            BL400520
     *  2.29,  1.04,  0.24,  0.17,  0.24,  0.05,  0.05,  0.03,  0.0 ,  0.0 ,BL400530
     * 20.70, 20.71,  4.48,  3.01,  4.48,  1.81,  0.84,  0.41,  0.0 ,  0.0 ,BL400540
     *  0.26,  0.19,  0.08,  0.06,  0.28,  0.06,  0.14,  0.02,  0.04,  0.0 ,BL400550
     *  2.29,  1.04,  0.22,  0.28,  0.22,  0.39,  0.12,  0.08,  0.0 ,  0.0 ,BL400560
     * 20.70, 20.71,  5.60,  2.02,  5.60,  3.75,  1.01,  0.49,  0.0,   0.0, BL400570
     *  0.26,  0.19,  0.08,  0.04,  0.25,  0.04,  0.11,  0.18,  0.04,  0.0 ,BL400580
     *  3.40,  3.50,  0.39,  0.12,  0.08,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400590
     * 38.84, 48.25,  3.75,  1.01,  0.49,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400600
     *  0.10,  0.17,  0.11,  0.18,  0.04,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400610
     *  4.46,  1.34,  5.82,  1.22,  0.32,  0.20,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400620
     * 55.59, 40.68, 56.80, 31.15,  3.17,  1.54,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400630
     *  0.01,  0.03,  0.02,  0.01,  0.01,  0.01,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400640
     *  0.58,  0.75,  0.75,  0.34,  0.25,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400650
     *  2.97,  1.71,  1.71,  1.71,  0.66,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400660
     *  0.64,  0.64,  0.64,  0.27,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400670
     *  4.01,  3.59,  2.87,  0.20,  0.13,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400680
     * 26.07,  6.68,  4.90,  1.34,  0.65,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400690
     *  0.01,  0.01,  0.03,  0.01,  0.04,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 /BL400700
C                                                                             BL400710
C***IDLE EMISSION FACTOR SLOPE: 49 STATE                                      BL400720
      DATA IDEL49/                                                            BL400730
     * 0.18, 0.20, 0.07, 0.07, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,          BL400740
     * 2.55, 2.92, 0.87, 0.67, 0.59, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,          BL400750
     * 0.0 , 0.0 , 0.0 , 0.03, 0.06, 0.08, 0.0 , 0.0 , 0.0 , 0.0 ,          BL400760
     * 0.18, 0.20, 0.19, 0.19, 0.06, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,          BL400770
     * 2.55, 2.92, 1.56, 1.56, 0.25, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,          BL400780
     * 0.0 , 0.0 , 0.0 , 0.02, 0.01, 0.02, 0.0 , 0.0 , 0.0 , 0.0 ,          BL400790
     * 0.18, 0.20, 0.19, 0.06, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,          BL400800
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     * 2.55, 2.92, 1.56, 0.25, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400810
     * 0.0 , 0.0 , 0.01, 0.02, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400820
     * 0.18, 0.20, 0.20, 0.20, 0.40, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400830
     * 2.55, 2.92, 2.92, 2.92, 5.00, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400840
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400850
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400860
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400870
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400880
     * 0.36, 0.62, 0.62, 0.10, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400890
     * 1.28, 1.12, 1.12, 0.48, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400900
     * 0.0 , 0.0 , 0.0 , 0.01, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0   /    BL400910
C                                                                        BL400920
C***IDLE EMISSION FACTOR SLOPE: CALIFORNIA                               BL400930
      DATA IDELCA/                                                       BL400940
     * 0.18, 0.31, 0.01, 0.01, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400950
     * 2.55, 3.15, 0.08, 0.08, 0.06, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400960
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400970
     * 0.18, 0.20, 0.19, 0.05, 0.05, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL400980
     * 2.55, 2.92, 1.56, 1.56, 0.29, 0.25, 0.0 , 0.0 , 0.0 , 0.0 ,      BL400990
     * 0.0 , 0.0 , 0.0 , 0.02, 0.04, 0.04, 0.04, 0.0 , 0.0 , 0.0 ,      BL401000
     * 0.18, 0.20, 0.05, 0.05, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401010
     * 2.55, 2.92, 1.56, 0.29, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401020
     * 0.0 , 0.0 , 0.02, 0.04, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401030
     * 0.18, 0.20, 0.20, 0.20, 0.20, 0.20, 0.40, 0.0 , 0.0 , 0.0 ,      BL401040
     * 2.55, 2.92, 2.92, 2.92, 2.92, 5.00, 0.0 , 0.0 , 0.0 , 0.0 ,      BL401050
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401060
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401070
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401080
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401090
     * 0.31, 0.28, 0.28, 0.12, 0.12, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401100
     * 1.80, 3.61, 3.61, 1.19, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401110
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0   /    BL401120
C                                                                        BL401130
C***IDLE EMISSION FACTOR SLOPE: HIGH ALTITUDE                            BL401140
      DATA IDELHI/                                                       BL401150
     * 0.21, 0.14, 0.07, 0.07, 0.07, 0.07, 0.07, 0.07, 0.0 , 0.0 ,      BL401160
     * 0.53, 1.15, 0.98, 0.87, 0.87, 0.67, 0.59, 0.59, 0.0 , 0.0 ,      BL401170
     * 0.0 , 0.0 , 0.0 , 0.04, 0.06, 0.06, 0.06, 0.08, 0.08, 0.0 ,      BL401180
     * 0.21, 0.14, 0.08, 0.19, 0.19, 0.19, 0.06, 0.06, 0.0 , 0.0 ,      BL401190
     * 0.53, 1.15, 1.24, 1.56, 1.56, 1.56, 0.25, 0.25, 0.0 , 0.0 ,      BL401200
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     * 0.0 , 0.0 , 0.0 , 0.07, 0.07, 0.07, 0.01, 0.01, 0.02, 0.0 ,    BL401210
     * 0.21, 0.14, 0.19, 0.06, 0.06, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401220
     * 0.53, 1.15, 1.56, 0.25, 0.25, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401230
     * 0.0 , 0.0 , 0.01, 0.01, 0.02, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401240
     * 0.21, 0.14, 0.14, 0.20, 0.40, 0.40, 0.0 , 0.0 , 0.0 , 0.0 ,    BL401250
     * 0.53, 1.15, 1.15, 2.92, 5.00, 5.00, 0.0 , 0.0 , 0.0 , 0.0 ,    BL401260
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401270
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401280
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401290
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401300
     * 0.36, 0.62, 0.62, 0.10, 0.10, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401310
     * 0.66, 1.12, 1.12, 0.48, 0.48, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 /    BL401320
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.01, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 /    BL401330
                                                                      BL401340
                                                                      BL401350
C
      END
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      BLOCK DATA                                                          BL500010
C                                                                         BL500020
      COMMON/IMCRED/PCIMHN,PCIMHY,PCIMCN,PCIMCY                           BL500030
C                                                                         BL500040
      INTEGER PCIMHN(19,5,4),PCIMHY(19,5,4),PCIMCN(19,5,4),               BL500050
     *  PCIMCY(19,5,4)                                                   BL500060
C                                                                         BL500070
C                                                                         BL500080
      DATA PCIMHN/ 3. 6.11.15.19.24.27.31.35.39.41.42.44.46.47.48.49.51.BL500090
     * 52.    4. 8.13.18.22.28.34.36.40.42.45.46.49.50.51.52.54.56.57.   BL500100
     *         7.14.20.28.34.39.43.46.49.52.54.55.57.58.59.60.61.62.63.   BL500110
     *         8.15.22.30.36.41.46.49.52.54.56.58.59.61.62.63.64.65.65.   BL500120
     *         8.16.23.31.37.42.46.50.53.55.57.59.60.61.62.63.64.65.66.   BL500130
     *         4. 6. 9.11.16.19.20.23.25.28.29.30.32.33.35.36.36.37.38.   BL500140
     *         6.11.16.20.23.27.31.33.36.38.40.41.43.44.45.46.47.48.49.   BL500150
     *        10.18.24.28.33.36.40.42.45.47.48.50.51.53.55.55.55.57.58.   BL500160
     *        12.20.26.32.37.40.43.46.49.51.52.54.55.56.57.59.59.60.61.   BL500170
     *        13.22.28.34.39.43.46.49.51.54.55.57.58.59.61.61.62.63.64.   BL500180
     *         4.11.22.32.42.49.54.58.62.64.66.68.69.71.72.73.74.74.75.   BL500190
     *         4.13.25.37.46.53.58.62.65.67.69.71.72.73.74.75.76.77.77.   BL500200
     *         4.15.28.40.49.55.60.64.67.69.71.72.74.75.76.77.77.78.79.   BL500210
     *         5.17.31.43.51.58.63.66.69.71.73.74.75.76.77.78.79.79.80.   BL500220
     *         5.16.32.44.53.59.63.67.70.72.73.75.76.77.78.79.79.80.81.   BL500230
     *         3. 7.14.23.31.38.44.49.53.56.58.60.62.63.65.66.67.68.69.   BL500240
     *         3. 7.15.24.33.40.46.51.54.57.60.62.63.65.66.67.68.69.70.   BL500250
     *         3. 7.16.25.34.41.47.51.55.58.60.62.64.65.67.68.69.70.71.   BL500260
     *         3. 8.17.26.35.42.48.52.56.59.61.63.65.66.68.69.70.71.71.   BL500270
C     *         3. 8.17.27.36.43.49.54.57.60.62.64.66.67.68.69.70.71.72/  BL500280
                                                                          BL500290
      DATA PCIMHY/ 6.13.17.20.25.32.35.40.45.47.49.50.53.53.54.56.57.57,BL500300
     * 58.    9.14.19.25.31.36.43.45.50.51.53.54.55.56.58.58.61.63.63.   BL500310
     *        12.19.27.35.41.44.51.53.55.57.59.61.61.63.65.65.66.66.67.   BL500320
     *        13.24.33.40.46.50.54.57.59.61.63.65.65.66.68.68.69.70.71.   BL500330
     *        14.25.35.42.48.53.56.59.62.64.65.66.68.69.70.70.71.72.72.   BL500340
     *         9.13.15.18.22.26.28.31.33.35.37.39.40.42.44.44.44.46.48.   BL500350
     *        13.16.20.26.31.34.38.41.43.44.45.47.48.50.52.52.53.54.55.   BL500360
     *        14.21.28.33.38.41.45.47.50.52.53.54.56.57.59.60.61.61.62.   BL500370
     *        15.24.31.36.41.44.48.50.52.54.56.58.58.60.61.62.63.63.65.   BL500380
     *        16.26.33.39.43.47.50.53.55.57.59.60.61.63.64.65.65.66.67.   BL500390
     *        10.33.51.59.67.70.74.76.78.80.80.81.82.83.84.84.85.85.86.   BL500400
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     *      13,36,53,62,69,73,76,78,80,81,82,83,83,84,85,85,86,86,87.    BL500410
     *      15,38,54,64,70,74,77,79,81,82,83,84,85,85,86,86,87,87,87.    BL500420
     *      16,39,54,64,70,74,77,80,81,83,84,85,85,86,87,87,87,88,88.    BL500430
     *      16,39,54,64,70,74,77,80,81,83,84,85,86,86,87,87,88,88,88.    BL500440
     *       7,24,36,52,54,65,66,69,72,75,75,75,77,79,79,80,80,81,81.    BL500450
     *      11,29,45,56,63,68,70,74,76,76,78,80,80,81,82,82,83,84,84.    BL500460
     *      12,32,46,58,65,69,72,75,76,77,80,81,81,82,83,83,84,85,85.    BL500470
     *      14,36,52,62,68,73,76,78,80,81,82,83,84,85,85,86,86,87,87.    BL500480
     *      15,38,54,64,70,74,77,79,81,83,84,85,85,86,87,87,88,88,88/    BL500490
                                                                          BL500500
C                                                                         BL500510
C                                                                         BL500520
      DATA PCIMCN/ 7,13,17,22,26,30,32,35,37,40,41,42,44,45,46,47,48,50,BL500530
     * 50,   9,17,22,27,31,35,37,40,42,44,46,48,49,51,52,53,54,55,56.    BL500540
     *       12,21,27,32,36,40,44,47,49,52,53,55,56,58,59,60,61,62,62.    BL500550
     *       14,23,29,35,39,43,47,50,52,55,56,58,59,60,61,62,63,64,65.    BL500560
     *       15,25,31,36,41,45,49,52,54,56,58,59,61,62,63,64,65,65,66.    BL500570
     *       10,15,20,23,26,28,31,32,34,35,37,37,38,40,41,41,42,43,44.    BL500580
     *       17,25,29,32,36,38,41,42,44,46,47,48,49,50,51,52,52,53,54.    BL500590
     *       21,31,36,40,44,47,49,51,53,55,56,57,58,59,60,61,62,62,63.    BL500600
     *       23,34,39,43,46,49,52,54,56,57,59,60,61,62,63,63,64,65,65.    BL500610
     *       25,36,41,45,49,52,54,56,58,60,61,62,63,64,65,66,67,67,68.    BL500620
     *        0, 4, 8,14,20,26,30,33,35,39,42,44,45,48,49,50,50,53,55.    BL500630
     *        0, 5,10,18,23,28,32,37,40,43,45,47,49,51,52,53,54,56,57.    BL500640
     *        1, 6,13,21,27,33,38,42,45,48,50,52,54,56,57,59,60,61,62.    BL500650
     *        1, 6,14,22,28,34,39,43,47,49,52,54,55,57,58,60,61,62,63.    BL500660
     *        2, 7,14,22,29,35,40,44,47,50,52,54,56,58,59,60,61,62,63.    BL500670
     *        0, 2, 7,13,19,24,29,33,37,40,43,45,47,49,50,52,53,54,55.    BL500680
     *        0, 4,11,19,26,32,37,42,45,48,51,53,55,56,58,59,60,62,62.    BL500690
     *        1, 5,13,21,28,34,40,44,48,51,53,55,57,58,60,61,62,63,64.    BL500700
     *        2, 8,18,28,36,42,47,52,55,58,60,62,63,65,66,67,68,69,70.    BL500710
     *        3,12,23,33,42,48,53,57,60,63,65,66,68,69,70,71,72,73,74/    BL500720
                                                                          BL500730
C                                                                         BL500740
      DATA PCIMCY/11,20,26,30,34,40,43,47,50,52,53,55,58,57,58,59,61,60,BL500750
     * 62,  16,23,29,35,40,43,49,51,54,55,57,58,59,60,62,62,64,66,66.    BL500760
     *       20,29,37,42,47,49,55,57,59,61,62,64,64,66,67,68,68,68,70.    BL500770
     *       22,34,41,46,51,55,58,61,63,64,65,67,68,69,70,70,71,72,73.    BL500780
     *       23,35,42,48,53,57,60,62,65,66,68,69,70,71,72,72,73,74,74.    BL500790
     *       17,25,27,31,35,38,40,43,44,45,49,50,50,53,54,54,55,56,58.    BL500800
     *       26,33,36,41,46,48,51,54,56,57,58,59,60,61,63,63,64,65,66.    BL500810
     *       30,41,47,50,54,57,59,61,63,65,65,66,67,68,69,70,71,71,71.    BL500820
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     *     32,45,50,54,57,60,63,64,65,67,68,69,70,71,72,72,73,73,74,   BL500810
     *     33,47,52,56,60,62,65,67,68,69,70,71,72,73,74,74,75,75,76,   BL500820
     *      5,24,40,48,56,60,65,67,69,72,72,74,75,76,77,78,78,79,79,   BL500830
     *      8,27,42,51,58,63,66,69,71,73,74,76,76,77,78,79,79,80,80,   BL500840
     *     11,29,43,52,59,64,67,70,72,74,75,76,77,78,79,80,80,81,81,   BL500850
     *     13,30,43,52,59,64,68,71,73,75,76,77,78,79,80,80,81,82,82,   BL500860
     *     14,30,43,52,59,64,68,71,73,75,76,77,78,79,80,81,81,82,82,   BL500870
     *      9,30,41,56,58,68,68,71,74,77,77,78,79,81,81,81,81,82,83,   BL500880
     *     15,37,51,60,66,70,72,76,77,78,80,82,82,82,83,84,84,85,85,   BL500890
     *     18,39,52,62,68,71,74,77,78,79,82,82,82,84,84,84,85,86,86,   BL500900
     *     21,43,57,66,71,75,78,80,81,83,84,85,85,86,86,87,87,88,88,   BL500910
     *     23,44,58,66,72,76,79,81,83,84,85,86,86,87,88,88,88,89,89/   BL500920
                                                                       BL500930
C                                                                      BL500940
      END
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@FLT,L  PTVEMDATA
ELT007 SL73R1 07/20/79 19:01:28 (4,)
000001      002   0      IPROMPT
000002      004   HOTSPOT GUIDELINE EMISSION CORRECTION FACTOR CALCULATION.
000003      003   0      INFLAG
000004      003   1      SF3FLG
000005      002   1      VMFLG
000006      002   0      MYMRFG
000007      002   0      ALTFLG
000008      002   0      IMFLG
000009      002   0      ALHFLG
000010      002   0      TRKFLG
000011      002   1      IFORM
000012      002   2      PRTFLG
000013      002   0      ICEVFG
000014      002   1      IDLFLG
000015      002   0      NMHFLG
000016      002   0      UNFFLG
000017      000    1, 82, 57., 57., 57., 30., 20., 10., 20.
000018      002   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000019      000    1, 83, 57., 57., 57., 30., 20., 10., 20.
000020      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000021      000    1, 77, 57., 57., 57., 75., 0., 0., 0.
000022      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000023      000    1, 82, 55., 55., 55., 30., 20., 10., 20.
000024      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000025      000    1, 83, 55., 55., 55., 30., 20., 10., 20.
000026      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000027      000    1, 77, 55., 55., 55., 75., 0., 0., 0.
000028      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000029      000    1, 82, 53., 53., 53., 30., 20., 10., 20.
000030      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000031      000    1, 83, 53., 53., 53., 30., 20., 10., 20.
000032      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000033      000    1, 77, 53., 53., 53., 75., 0., 0., 0.
000034      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000035      000    1, 82, 50., 50., 50., 30., 20., 10., 20.
000036      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000037      000    1, 83, 50., 50., 50., 30., 20., 10., 20.
000038      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000039      000    1, 77, 50., 50., 50., 75., 0., 0., 0.
000040      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000041      000    1, 82, 47., 47., 47., 30., 20., 10., 20.
000042      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000043      000    1, 83, 47., 47., 47., 30., 20., 10., 20.
000044      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000045      000    1, 77, 47., 47., 47., 75., 0., 0., 0.
000046      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000047      000    1, 82, 45., 45., 45., 30., 20., 10., 20.
000048      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000049      000    1, 83, 45., 45., 45., 30., 20., 10., 20.
000050      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000051      000    1, 77, 45., 45., 45., 75., 0., 0., 0.
000052      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000053      000    1, 82, 42., 42., 42., 30., 20., 10., 20.
000054      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000055      000    1, 83, 42., 42., 42., 30., 20., 10., 20.
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000056      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000057      000    1, 77, 42.., 42.., 42.., 75.., 0.., 0.., 0.
000058      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000059      000    1, 82, 40.., 40.., 40.., 30.., 20.., 10.., 20.
000060      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000061      000    1, 83, 40.., 40.., 40.., 30.., 20.., 10.., 20.
000062      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000063      000    1, 77, 40.., 40.., 40.., 75.., 0.., 0.., 0.
000064      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000065      000    1, 82, 37.., 37.., 37.., 30.., 20.., 10.., 20.
000066      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000067      000    1, 83, 37.., 37.., 37.., 30.., 20.., 10.., 20.
000068      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000069      000    1, 77, 37.., 37.., 37.., 75.., 0.., 0.., 0.
000070      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000071      000    1, 82, 35.., 35.., 35.., 30.., 20.., 10.., 20.
000072      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000073      000    1, 83, 35.., 35.., 35.., 30.., 20.., 10.., 20.
000074      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000075      000    1, 77, 35.., 35.., 35.., 75.., 0.., 0.., 0.
000076      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000077      000    1, 82, 30.., 30.., 30.., 30.., 20.., 10.., 20.
000078      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000079      000    1, 83, 30.., 30.., 30.., 30.., 20.., 10.., 20.
000080      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000081      000    1, 77, 30.., 30.., 30.., 75.., 0.., 0.., 0.
000082      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000083      000    1, 82, 25.., 25.., 25.., 30.., 20.., 10.., 20.
000084      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000085      000    1, 83, 25.., 25.., 25.., 30.., 20.., 10.., 20.
000086      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000087      000    1, 77, 25.., 25.., 25.., 75.., 0.., 0.., 0.
000088      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000089      000    1, 82, 20.., 20.., 20.., 30.., 20.., 10.., 20.
000090      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000091      000    1, 83, 20.., 20.., 20.., 30.., 20.., 10.., 20.
000092      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000093      000    1, 77, 20.., 20.., 20.., 75.., 0.., 0.., 0.
000094      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000095      000    1, 82, 15.., 15.., 15.., 30.., 20.., 10.., 20.
000096      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000097      000    1, 83, 15.., 15.., 15.., 30.., 20.., 10.., 20.
000098      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0
000099      000    1, 77, 15.., 15.., 15.., 75.., 0.., 0.., 0.
000100      000   0.880, 0.040, 0.040, 0.030, 0.010, 0.0

END ELT.

$PRKPT PRINTS
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HOTSPOT GUIDELINE EMISSION CORRECTION FACTOR CALCULATION.

* TOTAL HC EMISSION FACTORS INCLUDE EVAP. HC EMISSION FACTORS

CAL. YEAR: 1982 TEMP: 30.0(F) VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE 57.0/57.0/57.0 MPH (57.0) .880/ .040/ .040/ .030/ .010/ .000
20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	21.92	34.35	41.29	166.89	11.02	14.40	27.44

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE NOX:	.40	.27	.24	.02	1.00	.03	.38

CAL. YEAR: 1983 TEMP: 30.0(F) VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE 57.0/57.0/57.0 MPH (57.0) .880/ .040/ .040/ .030/ .010/ .000
20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	16.93	32.93	39.61	160.07	10.79	12.53	24.47

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.78	1.56	2.51	3.28	.39	2.16	.95
IDLE CO:	11.02	16.26	27.87	42.43	.70	4.61	12.74
IDLE NOX:	.42	.27	.23	.02	1.00	.03	.40

CAL. YEAR: 1977 TEMP: 75.0(F) VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE 57.0/57.0/57.0 MPH (57.0) .880/ .040/ .040/ .030/ .010/ .000
.0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	18.47	20.71	27.25	172.38	14.33	15.42	23.49

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	26.00
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

CAL. YEAR: 1982 TEMP: 30.0(F) VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE 55.0/55.0/55.0 MPH (55.0) .880/ .040/ .040/ .030/ .010/ .000
20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	23.28	36.46	42.96	161.65	10.97	15.05	28.62

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE NOX:	.40	.27	.24	.02	1.00	.03	.38

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                                    VEH. TYPE:  LDV    LDT1   LDT2   HDG    HDD    MC
CAL. YEAR: 1983      TEMP: 30.0(F)              .880/  .040/  .040/  .030/  .010/  .000
REGION: 49-STATE     55.0/55.0/55.0 MPH (55.0)                20.0/  10.0/  20.0

                        COMPOSITE EMISSION FACTORS (GM/MILE)
                 LDV      LDT1     LDT2     HDG      HDD      MC      ALL MODES
EXHAUST  CO:   20.14     35.03    41.32   155.53    10.75    13.10      25.55

                    HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)
   IDLE  HC:     .78      1.56     2.51     3.28      .39     2.16        .95
   IDLE  CO:   11.02     16.26    27.87    42.43      .70     4.61      12.74
   IDLE NOX:     .42       .27      .23      .02     1.00      .03        .40
-------------------------------------------------------------------------------
                                    VEH. TYPE:  LDV    LDT1   LDT2   HDG    HDD    MC
CAL. YEAR: 1977      TEMP: 75.0(F)              .880/  .040/  .040/  .030/  .010/  .000
REGION: 49-STATE     55.0/55.0/55.0 MPH (55.0)          .0/    .0/    .0

                        COMPOSITE EMISSION FACTORS (GM/MILE)
                 LDV      LDT1     LDT2     HDG      HDD      MC      ALL MODES
EXHAUST  CO:   19.64     21.96    28.02   162.57    14.07    15.97      24.30

                    HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)
   IDLE  HC:    1.66      1.94     3.52     4.05      .44     4.25       1.80
   IDLE  CO:   25.17     26.29    37.67    42.93      .93     8.96      26.00
   IDLE NOX:     .28       .24      .24      .03     1.04      .01        .28
-------------------------------------------------------------------------------
                                    VEH. TYPE:  LDV    LDT1   LDT2   HDG    HDD    MC
CAL. YEAR: 1982      TEMP: 30.0(F)              .880/  .040/  .040/  .030/  .010/  .000
REGION: 49-STATE     53.0/53.0/53.0 MPH (53.0)          20.0/  10.0/  20.0

                        COMPOSITE EMISSION FACTORS (GM/MILE)
                 LDV      LDT1     LDT2     HDG      HDD      MC      ALL MODES
EXHAUST  CO:   24.11     37.74    43.67   157.67    10.99    15.46      29.32

                    HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)
   IDLE  HC:     .90      1.62     2.70     3.49      .41     2.48       1.07
   IDLE  CO:   13.20     17.54    30.10    43.52      .71     5.29      14.84
   IDLE NOX:     .40       .27      .24      .02     1.00      .03        .38
-------------------------------------------------------------------------------
                                    VEH. TYPE:  LDV    LDT1   LDT2   HDG    HDD    MC
CAL. YEAR: 1983      TEMP: 30.0(F)              .880/  .040/  .040/  .030/  .010/  .000
REGION: 49-STATE     53.0/53.0/53.0 MPH (53.0)          20.0/  10.0/  20.0

                        COMPOSITE EMISSION FACTORS (GM/MILE)
                 LDV      LDT1     LDT2     HDG      HDD      MC      ALL MODES
EXHAUST  CO:   20.87     36.30    42.36   152.10    10.77    13.47      26.18

                    HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)
   IDLE  HC:     .78      1.56     2.51     3.28      .39     2.16        .95
   IDLE  CO:   11.02     16.26    27.87    42.43      .70     4.61      12.74
   IDLE NOX:     .42       .27      .23      .02     1.00      .03        .40
-------------------------------------------------------------------------------
                                    VEH. TYPE:  LDV    LDT1   LDT2   HDG    HDD    MC
CAL. YEAR: 1977      TEMP: 75.0(F)              .880/  .040/  .040/  .030/  .010/  .000
REGION: 49-STATE     53.0/53.0/53.0 MPH (53.0)          .0/    .0/    .0

                        COMPOSITE EMISSION FACTORS (GM/MILE)
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		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	20.39	22.77	28.49	154.94	13.91	16.31	24.78

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE	CO:	25.17	28.29	37.67	42.93	.93	8.96	26.00
IDLE	NOX:	.28	.24	.24	.03	1.04	.01	.28

CAL. YEAR: 1982 VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000
50.0/50.0/50.0 MPH (50.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	24.72	38.68	44.84	153.81	11.15	15.83	29.82

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE	CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE	NOX:	.40	.27	.24	.02	1.00	.03	.38

CAL. YEAR: 1983 VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000
50.0/50.0/50.0 MPH (50.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	21.40	37.20	43.21	148.82	10.94	13.80	26.62

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	.78	1.56	2.51	3.28	.39	2.16	.95
IDLE	CO:	11.02	16.26	27.67	42.43	.70	4.61	12.74
IDLE	NOX:	.42	.27	.23	.02	1.00	.03	.40

CAL. YEAR: 1977 VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE TEMP: 75.0(F) .880/ .040/ .040/ .030/ .010/ .000
50.0/50.0/50.0 MPH (50.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	21.06	23.47	28.97	146.93	13.87	16.64	25.18

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE	CO:	25.17	28.29	37.67	42.93	.93	8.96	26.00
IDLE	NOX:	.28	.24	.24	.03	1.04	.01	.28

CAL. YEAR: 1982 VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000
47.0/47.0/47.0 MPH (47.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	25.08	39.21	45.59	152.23	11.48	16.15	30.14

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	.90	1.62	2.70	3.49	.41	2.48	1.07

IDLE CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE NOX:	.40	.27	.24	.02	1.00	.03	.38

	VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1983	TEMP: 30.0(F)	.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE	47.0/47.0/47.0 MPH (47.0)			20.0/	10.0/	20.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	21.69	37.69	43.91	147.57	11.26	14.08	26.89

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.78	1.56	2.51	3.28	.39	2.16	.95
IDLE CO:	11.02	16.26	27.87	42.43	.70	4.61	12.74
IDLE NOX:	.42	.27	.23	.02	1.00	.03	.40

	VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1977	TEMP: 75.0(F)	.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE	47.0/47.0/47.0 MPH (47.0)			.0/	.0/	.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	21.58	24.01	29.56	142.45	14.03	16.93	25.55

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	26.00
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

	VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1982	TEMP: 30.0(F)	.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE	45.0/45.0/45.0 MPH (45.0)			20.0/	10.0/	20.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	25.39	39.68	46.30	152.36	11.79	16.42	30.47

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE NOX:	.40	.27	.24	.02	1.00	.03	.38

	VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1983	TEMP: 30.0(F)	.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE	45.0/45.0/45.0 MPH (45.0)			20.0/	10.0/	20.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	21.94	38.12	44.56	147.81	11.58	14.32	27.16

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.78	1.56	2.51	3.28	.39	2.16	.95
IDLE CO:	11.02	16.26	27.87	42.43	.70	4.61	12.74
IDLE NOX:	.42	.27	.23	.02	1.00	.03	.40

	VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1977	TEMP: 75.0(F)	.880/	.040/	.040/	.030/	.010/	.000

REGION: 49-STATE 45.0/45.0/45.0 MPH (45.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	22.01	24.47	30.15	141.21	14.27	17.19	25.93

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	26.00
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC

CAL. YEAR: 1982 TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000

REGION: 49-STATE 42.0/42.0/42.0 MPH (42.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	26.17	40.87	47.93	154.31	12.42	17.02	31.34

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE NOX:	.40	.27	.24	.02	1.00	.03	.38

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC

CAL. YEAR: 1983 TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000

REGION: 49-STATE 42.0/42.0/42.0 MPH (42.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	22.59	34.24	46.10	149.76	12.21	14.85	27.91

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.78	1.56	2.51	3.28	.39	2.16	.95
IDLE CO:	11.02	16.26	27.87	42.43	.70	4.61	12.74
IDLE NOX:	.42	.27	.23	.02	1.00	.03	.40

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC

CAL. YEAR: 1977 TEMP: 75.0(F) .880/ .040/ .040/ .030/ .010/ .000

REGION: 49-STATE 42.0/42.0/42.0 MPH (42.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	22.96	25.47	31.48	141.82	14.81	17.75	26.88

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	26.00
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC

CAL. YEAR: 1982 TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000

REGION: 49-STATE 40.0/40.0/40.0 MPH (40.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	26.97	42.09	49.49	156.79	12.96	17.58	32.23

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE NOX:	.40	.27	.24	.02	1.00	.03	.38

VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1983 TEMP: 30.0(F)	.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE 40.0/40.0/40.0 MPH (40.0)			20.0/	10.0/	20.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	23.26	40.46	47.57	152.12	12.74	15.33	28.68

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.75	1.56	2.51	3.28	.39	2.16	.95
IDLE CO:	11.02	16.26	27.67	42.43	.70	4.61	12.74
IDLE NOX:	.42	.27	.23	.02	1.00	.03	.40

VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1977 TEMP: 75.0(F)	.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE 40.0/40.0/40.0 MPH (40.0)			.0/	.0/	.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	23.85	26.42	32.70	143.86	15.31	18.26	27.82

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	26.00
IDLE NOX:	.28	.24	.24	.07	1.04	.01	.28

VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1982 TEMP: 30.0(F)	.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE 37.0/37.0/37.0 MPH (37.0)			20.0/	10.0/	20.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	28.65	44.65	52.58	162.39	13.96	18.67	34.11

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE NOX:	.40	.27	.24	.02	1.00	.03	.38

VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1983 TEMP: 30.0(F)	.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE 37.0/37.0/37.0 MPH (37.0)			20.0/	10.0/	20.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	24.70	42.65	50.53	157.38	13.75	16.30	30.33

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.78	1.56	2.51	3.28	.39	2.16	.95
IDLE CO:	11.02	16.26	27.67	42.43	.70	4.61	12.74
IDLE NOX:	.42	.27	.23	.02	1.00	.03	.40

CAL. YEAR: 1977 VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE TEMP: 75.0(F) .880/ .040/ .040/ .030/ .010/ .000
37.0/37.0/37.0 MPH (37.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	25.64	25.32	35.08	149.47	16.28	19.27	29.75

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	26.00
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

CAL. YEAR: 1982 VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000
35.0/35.0/35.0 MPH (35.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	30.09	46.87	55.17	167.48	14.79	19.59	35.74

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE NOX:	.40	.27	.24	.02	1.00	.03	.38

CAL. YEAR: 1983 VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000
35.0/35.0/35.0 MPH (35.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	25.94	44.99	53.02	162.11	14.57	17.11	31.76

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.78	1.56	2.51	3.28	.39	2.16	.95
IDLE CO:	11.02	16.26	27.87	42.43	.70	4.61	12.74
IDLE NOX:	.42	.27	.23	.02	1.00	.03	.40

CAL. YEAR: 1977 VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE TEMP: 75.0(F) .880/ .040/ .040/ .030/ .010/ .000
35.0/35.0/35.0 MPH (35.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	27.16	29.93	37.04	155.03	17.10	20.09	31.40

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	26.00
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

CAL. YEAR: 1982 VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
REGION: 49-STATE TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000
30.0/30.0/30.0 MPH (30.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	34.85	54.14	63.43	185.71	17.54	22.50	41.12

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE	CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE	NOX:	.40	.27	.24	.02	1.00	.03	.38

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC

CAL. YEAR: 1983 TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000

REGION: 49-STATE 30.0/30.0/30.0 MPH (30.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	30.05	52.02	61.01	178.93	17.32	19.68	36.50

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	.78	1.56	2.51	3.28	.39	2.16	.95
IDLE	CO:	11.02	16.26	27.87	42.43	.70	4.61	12.74
IDLE	NOX:	.42	.27	.23	.02	1.00	.03	.40

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC

CAL. YEAR: 1977 TEMP: 75.0(F) .880/ .040/ .040/ .030/ .010/ .000

REGION: 49-STATE 30.0/30.0/30.0 MPH (30.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	32.10	35.18	43.28	176.45	19.89	22.66	36.88

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE	CO:	25.17	26.29	37.67	42.93	.93	8.96	26.00
IDLE	NOX:	.28	.24	.24	.03	1.04	.01	.28

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC

CAL. YEAR: 1982 TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000

REGION: 49-STATE 25.0/25.0/25.0 MPH (25.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	41.09	63.66	74.25	214.01	21.60	26.35	48.31

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE	CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE	NOX:	.40	.27	.24	.02	1.00	.03	.38

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC

CAL. YEAR: 1983 TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000

REGION: 49-STATE 25.0/25.0/25.0 MPH (25.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	35.43	61.21	71.47	204.78	21.39	23.08	42.84

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	.78	1.56	2.51	3.28	.39	2.16	.95

IDLE CO:	11.02	16.26	27.87	42.43	.70	4.61	12.74
IDLE NOX:	.42	.27	.23	.02	1.00	.03	.40

			VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1977	TEMP: 75.0(F)			.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE	25.0/25.0/25.0 MPH (25.0)					.0/	.0/	.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	38.71	42.16	51.56	211.97	24.05	25.98	44.41

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	26.00
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

			VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1982	TEMP: 30.0(F)			.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE	20.0/20.0/20.0 MPH (20.0)					20.0/	10.0/	20.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	49.04	75.75	88.69	256.79	27.63	31.51	57.71

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE NOX:	.40	.27	.24	.02	1.00	.03	.38

			VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1983	TEMP: 30.0(F)			.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE	20.0/20.0/20.0 MPH (20.0)					20.0/	10.0/	20.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	42.23	72.81	85.32	243.51	27.46	27.65	51.07

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	.78	1.56	2.51	3.28	.39	2.16	.95
IDLE CO:	11.02	16.26	27.87	42.43	.70	4.61	12.74
IDLE NOX:	.42	.27	.23	.02	1.00	.03	.40

			VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1977	TEMP: 75.0(F)			.880/	.040/	.040/	.030/	.010/	.000
REGION: 49-STATE	20.0/20.0/20.0 MPH (20.0)					.0/	.0/	.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST CO:	47.49	51.42	62.98	268.72	30.27	30.45	54.73

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	26.00
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

			VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
CAL. YEAR: 1982	TEMP: 30.0(F)			.880/	.040/	.040/	.030/	.010/	.000

REGION: 49-STATE 15.0/15.0/15.0 MPH (15.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	61.14	94.10	112.08	321.65	36.72	39.89	72.07

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	.90	1.62	2.70	3.49	.41	2.48	1.07
IDLE	CO:	13.20	17.54	30.10	43.52	.71	5.29	14.84
IDLE	NOX:	.40	.27	.24	.02	1.00	.03	.38

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC

CAL. YEAR: 1983 TEMP: 30.0(F) .880/ .040/ .040/ .030/ .010/ .000

REGION: 49-STATE 15.0/15.0/15.0 MPH (15.0) 20.0/ 10.0/ 20.0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	52.48	90.26	107.54	301.67	36.63	35.05	63.51

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	.78	1.56	2.51	3.28	.39	2.16	.95
IDLE	CO:	11.02	16.26	27.87	42.43	.70	4.61	12.74
IDLE	NOX:	.42	.27	.23	.02	1.00	.03	.40

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC

CAL. YEAR: 1977 TEMP: 75.0(F) .880/ .040/ .040/ .030/ .010/ .000

REGION: 49-STATE 15.0/15.0/15.0 MPH (15.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

		LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
EXHAUST	CO:	61.41	66.07	82.12	359.71	39.61	37.84	71.15

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE	HC:	1.66	1.94	3.52	4.05	.44	4.25	1.80
IDLE	CO:	25.17	26.29	37.67	42.93	.93	8.96	26.00
IDLE	NOX:	.28	.24	.24	.03	1.04	.01	.28

APPENDIX B

CORRECT1 (PTCORRECT1)*

CORRECT1 was executed three times so that correction factors for the years 1978, 1980, 1982, 1985, 1987 and 1990 could be generated. The listing from each execution is shown. The output of each execution consists of four pages, viz, the emission factors for the base year scenario and the tables of correction factors for low altitude, high altitude, and California.

* The sample executions contained herein are those that were used to generate the tables and screening curves in Volume I of the Hot Spot Guidelines.

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C          DATA SET PTCORRECT1 AT LEVEL 01 AS OF 04/23/78                MA100010
C      PROGRAM CORRECT - CORRECTION FACTORS FOR VERIFICATION OF HOT STARTMA100020
C                                                                        MA100030
C      THIS PROGRAM IS USED TO PREPARE THE TABLES OF EMISSION CORRECTION MA100040
C      FATORS FOR USE IN CORRECTING THE BASE CASE EMISSION RATES IN      MA100050
C      THE HOT SPOT VERIFICATION TABLES FOR SIGNALIZED AND NONSIGNALIZED MA100060
C      INTERSECTIONS.  THREE TYPES OF INPUT ARE REQUIRED.  THE FIRST     MA100070
C      DESCRIBES THE CHARACTERISTICS OF THE BASE CASE SCENARIO,  THAT    MA100080
C      IS,  THE SCENARIO UPON WHICH THE HOT SPOT VERIFICATION TAELES OF  MA100090
C      EMISSION RATES ARE BASED.  FOR EXAMPLE, REGION, CALANDER YEAR,    MA100100
C      MODAL SPLIT, TEMPERATURE, AND COLD AND HOT STARTS MUST BE         MA100110
C      SPECIFIED.  IF THE FLAGS ALHFLG,TRKFLG, AND IMFLG ARE SET         MA100120
C      EQUAL TO ONE,  DATA ON VEHICLE LOADING, HUMIDITY, TRUCK LOADING   MA100130
C      AND DISPLACEMENT, AND INSPECTION MAINTENANCE CAN BE PROVIDED.     MA100140
C         THE SECOND TYPE OF INPUT IS USED TO SPECIFY THE RANGE OF THE   MA100150
C      TABULATED CORRECTION FACTORS.                                     MA100160
C         THE THIRD TYPE OF INPUT IS USED TO SPECIFY VEHICLE             MA100170
C      LOADING, HUMIDITY, TRUCK LOADING AND DISPLACEMENT, AND            MA100180
C      INSPECTION MAINTENANCE FOR THE SCENARIO OF THE TABULATED          MA100190
C      EMISSION CORRECION TABLES.                                        MA100200
C                                                                        MA100210
C                                                                        MA100220
C                                                                        MA100230
C      THE FIRST DIMENSION STATMENT MUST BE CHANGED IF MORE THAN         MA100240
C         8 YEARS                                                        MA100250
C         4 SPEEDS - INCLUDING IDLE                                      MA100260
C         3 COLD START VALUES                                            MA100270
C         2 HOT START VALUES                                             MA100280
C         3 TEMPERATURES                                                 MA100290
C      ARE USED.  IN ADDITION NOTE THAT THE PRODUCT OF THE NUMBER OF     MA100300
C      SPEEDS AND THE NUMBER OF YEARS CANNOT EXCEED 24.                  MA100310
C                                                                        MA100320
       DIMENSION ITITL1(8,4),ITITL2(8,4),TABLE(8,4,5,3,2,3),BASE(4)      MA100330
       DIMENSION  XLOAD(3),BASECZ(6),BASEID(6),EMCRUZ(6),EMIDLE(6),      MA100340
      &TITLE(6)                                                          MA100350
       REAL*8 REGION(6)                                                  MA100360
       INTEGER ALHFLG,PRTFLG,TRKFLG,CY                                   MA100370
       REAL MS(6)                                                        MA100380
       DATA TITLE/'LDV','LDT','MC ','HDG','HDD','   '/                   MA100390
       DATA REGION/'LOW ALTI','TUDE    ','CALIFORN','IA      ',         MA100400
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     &'HIGH ALT','ITUDE   '/                                                    MAI00410
                                                                                MAI00420
C                                                                               MAI00430
C                                                                               MAI00440
C     READ SPECIFICATIONS FOR BASE YEAR EMISSION SCENARIO                       MAI00450
C                                                                               MAI00460
C                                                                               MAI00470
      READ (5,100) IREJN,CY,      TEMP,PCCO,PCHS,PCCC,(MS(I),I=1,6),            MAI00480
     &ALHFLG,AC,XLOAD,TRAILR,ABSHUM,TRKFLG,HGWGT,HDWGT,HGCID,HDCID,             MAI00490
     &IMFLG,ICYIM,ISTRIN,IMTFLG,MODYR1,MODYR2                                   MAI00500
  100 FORMAT(I2,I3,4F5.1,6F5.3/I2,3X,6F10.0/I2,3X,4F10.0/I2,3X,5I5)             MAI00510
                                                                                MAI00520
C                                                                               MAI00530
C                                                                               MAI00540
C     READ SPECIFICATIONS FOR THE SIZE OF THE TABLE                             MAI00550
C                                                                               MAI00560
C                                                                               MAI00570
      READ (5,150) I1YR,I2YR,I3YR,I1HOT,I2HOT,I3HOT,                            MAI00580
     &I1COLD,I2COLD,I3COLD,I1TEMP,I2TEMP,I3TEMP,I1SPED,I2SPED,I3SPED            MAI00590
  150 FORMAT(15I5)                                                              MAI00600
                                                                                MAI00610
C                                                                               MAI00620
C                                                                               MAI00630
C     COMPUTE BASE YEAR EMISSIONS                                               MAI00640
C                                                                               MAI00650
C                                                                               MAI00660
      INIFLG=1                                                                  MAI00670
      PRTFLG=1                                                                  MAI00680
      I=1                                                                       MAI00690
      DO 175 J=I1SPED,I2SPED,I3SPED                                             MAI00700
      SPEED=FLOAT(J)                                                            MAI00710
      I=I+1                                                                     MAI00720
      CALL SUPR(INIFLG,IREJN,CY,SPEED,TEMP,PCCO,PCHS,PCCC,MS,ALHFLG,AC,         MAI00730
     &XLOAD,TRAILR,ABSHUM,TRKFLG,HGWGT,HDWGT,HGCID,HDCID,IMFLG,ICYIM,           MAI00740
     &ISTRIN,IMTFLG,MODYR1,MODYR2,PRTFLG,BASECZ,BASEID)                         MAI00750
      BASE(I)=BASECZ(6)                                                         MAI00760
      INIFLG=0                                                                  MAI00770
  175 CONTINUE                                                                  MAI00780
      BASE(1)=BASEID(6)                                                         MAI00790
      WRITE(6,176) (BASE(J),J=1,4)                                              MAI00800
  176 FORMAT(4F10.4)
C
C
```

```
C     READ SPECIFICATIONS FOR PROJECTION SCENARIO                          MA100810
C                                                                          MA100820
C                                                                          MA100830
      READ (5,200) ALHFLG,AC,XLOAD,TRAILR,ABSHUM,TRKFLG,HGWGT,HDWGT,       MA100840
     &HGCID,HDCID,IMFLG,ICYIM,ISTRIN,IMTFLG,MODYR1,MODYR2                 MA100850
  200 FORMAT(I2,3X,6F10.0/I2,3X,4F10.0/I2,3X,5I5)                          MA100860
C                                                                          MA100870
C                                                                          MA100880
C     LOOP ON REGION                                                       MA100890
C                                                                          MA100900
C                                                                          MA100910
      IF(((I2YR-I1YR)/I3YR+1)*((I2SPED-I1SPED)/I3SPED+2).GT.24) GO TO 9    MA100920
      INIFLG=0                                                             MA100930
      PRTFLG=0                                                             MA100940
C                                                                          MA100950
      DO 3000 IREG=1,3                                                     MA100960
C     ---------------------------------------------------------------------MA100970
C                                                                          MA100980
C                                                                          MA100990
C     LOOP ON YEAR, HOT & COLD STARTS, TEMP, AND SPEED                     MA101000
C     TO COMPUTE EMISSION CORRECTION FACTOR                                MA101010
C                                                                          MA101020
C                                                                          MA101030
      DO 500 IYR=I1YR,I2YR,I3YR                                            MA101040
      I4YR=(IYR-I1YR)/I3YR+1                                               MA101050
      DO 500 IHOT=I1HOT,I2HOT,I3HOT                                        MA101060
      I4HOT=(IHOT-I1HOT)/I3HOT+1                                           MA101070
      HOT=FLOAT(IHOT)                                                      MA101080
      DO 500 ICOLD=I1COLD,I2COLD,I3COLD                                    MA101090
      I4COLD=(ICOLD-I1COLD)/I3COLD+1                                       MA101100
      COLD=FLOAT(ICOLD)                                                    MA101110
      CC=COLD                                                              MA101120
      DO 500 ITEMP=I1TEMP,I2TEMP,I3TEMP                                    MA101130
      I4TEMP=(ITEMP-I1TEMP)/I3TEMP+1                                       MA101140
      TEMP=FLOAT(ITEMP)                                                    MA101150
      DO 480 ISPED=I1SPED,I2SPED,I3SPED                                    MA101160
      I4SPED=(ISPED-I1SPED)/I3SPED+2                                       MA101170
      SPED=FLOAT(ISPED)                                                    MA101180
C                                                                          MA101190
                                                                           MA101200
```

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C                                                                       MAI01210
      CALL SUPR(INITFLG,IREG,IYR,SPED,TEMP,COLD,HOT,CC,MS,ALHFLG,AC,    MAI01220
     &XLOAD,TRAILR,APSHUM,TRKFLG,HGWGT,HDWGT,HGCID,HDCID,IMFLG,ICYIN,   MAI01230
     &ISTRIN,IMTFLG,MODYR1,MODYR2,PRTFLG,EMCRUZ,EMIDLE)                 MAI01240
C                                                                       MAI01250
C                                                                       MAI01260
C     COMPUTE CORRECTION FACTOR                                         MAI01270
C                                                                       MAI01280
C                                                                       MAI01290
      DO 460 IM=1,5                                                     MAI01300
      TABLE(I4YR,I4SPED,IM,I4COLD,I4HOT,I4TEMP)=EMCRUZ(IM)/BASE(I4SPED) MAI01310
  460 CONTINUE                                                          MAI01320
  480 CONTINUE                                                          MAI01330
      DO 490 IM=1,5                                                     MAI01340
      TABLE(I4YR,1,IM,I4COLD,I4HOT,I4TEMP)=EMIDLE(IM)/BASE(1)           MAI01350
  490 CONTINUE                                                          MAI01360
  500 CONTINUE                                                          MAI01370
C                                                                       MAI01380
C                                                                       MAI01390
      I5YR=I4YR                                                         MAI01400
      I5HOT=I4HOT                                                       MAI01410
      I5COLD=I4COLD                                                     MAI01420
      I5TEMP=I4TEMP                                                     MAI01430
      I5SPED=I4SPED                                                     MAI01440
C                                                                       MAI01450
C                                                                       MAI01460
C     PRINT TITLE ON TABLE                                              MAI01470
C                                                                       MAI01480
C                                                                       MAI01490
      WRITE (6,700) REGION(IREG*2-1),REGION(IREG*2)                     MAI01500
  700 FORMAT('1EMISSION CORRECTION FACTORS FOR REGION: ',2A8)           MAI01510
      DO 710 I1=1,I5YR                                                  MAI01520
      ITITLE=(I1-1)*I3YR+I1YR+1900                                      MAI01530
      DO 710 I2=1,I5SPED                                                MAI01540
  710 ITITL1(I1,I2)=ITITLE                                              MAI01550
      DO 720 I2=2,I5SPED                                                MAI01560
      ITITLE=(I2-2)*I3SPED+I1SPED                                       MAI01570
      DO 720 I1=1,I5YR                                                  MAI01580
  720 ITITL2(I1,I2)=ITITLE                                              MAI01590
      DO 730 I1=1,I5YR                                                  MAI01600
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      730 ITITL2(I1,1)=0                                                        MAI01610
          WRITE (6,740) (( ITITL1(I1,I2),I2=1,I5SPED),I1=1,I5YR)                MAI01620
          WRITE (6,750) (( ITITL2(I1,I2),I2=1,I5SPED),I1=1,I5YR)                MAI01630
      740 FORMAT("0",7X,"YEAR:",2415)                                           MAI01640
      750 FORMAT(8X,"SPEED:",I4,2315)                                           MAI01650
          WRITE (6,760)                                                         MAI01660
      760 FORMAT(" M   H  C  T",120("-"))                                       MAI01670
C                                                                               MAI01680
C     PRINT VALUE FOR FIRST THREE MODES (LDV,LDT,MC)                            MAI01690
C                                                                               MAI01700
          DO 2000 IM=1,3                                                        MAI01710
          WRITE (6,780)                                                         MAI01720
      780 FORMAT (1X)                                                           MAI01730
          ICOUNT=0                                                              MAI01740
          DO 1000 I4HOT=1,I5HOT                                                 MAI01750
          IHOT=(I4HOT-1)*I3HOT+I1HOT                                            MAI01760
          DO 1000 I4COLD=1,I5COLD                                               MAI01770
          ICOLD=(I4COLD-1)*I3COLD+I1COLD                                        MAI01780
          DO 1000 I4TEMP=1,I5TEMP                                               MAI01790
          ITEMP=(I4TEMP-1)*I3TEMP+I1TEMP                                        MAI01800
          IT=IM                                                                 MAI01810
          IF (ICOUNT.NE.0) IT=6                                                 MAI01820
          WRITE (6,800) TITLE(IT),IHOT,ICOLD,ITEMP,((TABLE(                    MAI01830
         &I4COLD,I4HOT,I4TEMP),I2=1,I5SPED),I1=1,I5YR)          I1,I2,IM,     MAI01840
      800 FORMAT(1X,A3,3I3,24F5.2)                                              MAI01850
          ICOUNT=ICOUNT+1                                                       MAI01860
      1000 CONTINUE                                                             MAI01870
          ICOUNT=0                                                              MAI01880
      2000 CONTINUE                                                             MAI01890
C                                                                               MAI01900
C                                                                               MAI01910
C     PRINT VALUES FOR LAST TWO MODES (HDG & HDD)                               MAI01920
C                                                                               MAI01930
C                                                                               MAI01940
          DO 2500 IM=4,5                                                        MAI01950
      2500 WRITE(6,2501) TITLE(IM),((TABLE(I1,I2,IM,1,1,1),I2=1,I5SPED),       MAI01960
         &I1=1,I5YR)                                                            MAI01970
      2501 FORMAT("0",A3,9X,24F5.2)                                             MAI01980
                                                                                MAI01990
                                                                                MAI02000
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  3000 CONTINUE                                                          MAI02010
C                                                                        MAI02020
C                                                                        MAI02030
C     LOOP BACK TO BEGINING TO PROCESS ANOTHER REGION                    MAI02040
C     ------------------------------------------------------------------ MAI02050
C                                                                        MAI02060
C                                                                        MAI02070
      CALL EXIT                                                          MAI02080
    9 WRITE(6,4000) II                                                   MAI02090
 4000 FORMAT('1PRODUCT OF NUMBER OF SPEEDS AND NUMBER OF YEARS EXCEEDS 2MAI02100
     &4.'/' PRODUCT EQUALS ',I7)                                         MAI02110
      CALL EXIT                                                          MAI02120
      END                                                                MAI02130
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      SUBROUTINE SUPP (INIFLG,I1,I2,A1,X1,X2,X3,X4,A2,                  SUP00010
     &I5,X5,A3,X6,X7,I6,X8,X9,X10,X11,I7,I8,I9,I10,I11,I12,             SUP00020
     &I13,EMCRUZ,EMIDLE)                                                SUP00030
C                                                                       SUP00040
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IRDFLG,SP3FLG,NMHFLG,IDLFLG,   SUP00050
     *             UNFFLG,MYMRFG,IMFLG,ICEVFG,PRTFLG,IFORM              SUP00060
      COMMON/REGCOM/IREJN                                               SUP00070
      COMMON/LNKCOM/SPD,TEMP,PCCO,PCHS,PCCC,VMTMIX                      SUP00080
      COMMON/ALTCOM/NMYALT,ALTKCD                                       SUP00090
      COMMON/MYMCOM/MYM,MYR,TF                                          SUP00100
      COMMON/JUNK1/AC,XLOAD,TRAILR,ABSHUP                               SUP00110
      COMMON/JUNK2/HGWGT,HDWGT,HGCID,HDCID                              SUP00120
      COMMON/PROJCM/PROJID                                              SUP00130
      COMMON/IMCOM/ICYIM,ISTRIN,IMTFLG,MODYR1,MODYR2                    SUP00140
      COMMON/SP1COM/SP1,SPAV                                            SUP00150
C                                                                       SUP00160
      INTEGER ALHFLG,TRKFLG,ALTFLG,ALTKCD(4,20),CY,VMFLAG,SP3FLG,       SUP00170
     *        NMHFLG,IDLFLG,UNFFLG,PRTFLG                               SUP00180
      REAL XLOAD(3),SPD(3),VMTMIX(6),MYM(20,6),MYR(20,6),TF(20,6)       SUP00190
      REAL EFRETM(3,6),WTEDEF(3),LNKDTA(7),PROJID(20)                   SUP00200
      EQUIVALENCE (SPD(1),LNKDTA(1))                                    SUP00210
      DATA VMTMIX/.803,.058,.058,.045,.031,.005/                        SUP00220
C                                                                       SUP00230
      DATA IREAD,IWRI/5,6/                                              SUP00240
      REAL COMCCC(6),IDLRTM(3,6),IDLWTD(3)                              SUP00250
      DIMENSION A2(6),A3(3),EMCRUZ(6),EMIDLE(6)                         SUP00260
      DATA IRJOLD/0/                                                    SUP00270
C                                                                       SUP00280
C                                                                       SUP00290
C                                                                       SUP00300
C                                                                       SUP00310
C                                                                       SUP00320
C                                                                       SUP00330
      IREJN=11                                                          SUP00340
      CY=12                                                             SUP00350
      TEMP=X1                                                           SUP00360
      PCCO=X2                                                           SUP00370
      PCHS=X3                                                           SUP00380
      PCCC=X4                                                           SUP00390
      DO 5 J=1,6                                                        SUP00400
    5 VMTMIX(J)=A2(J)
      ALHFLG=15
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      AC=X5                                                          SUP00410
      DO 6 J=1,3                                                     SUP00420
    6 XLOAD(J)=A3(J)                                                 SUP00430
      TRAILR=X6                                                      SUP00440
      ABSHUM=X7                                                      SUP00450
      TRKFLG=I6                                                      SUP00460
      HGWGT=X8                                                       SUP00470
      HDWGT=X9                                                       SUP00480
      HGCID=X10                                                      SUP00490
      HDCID=X11                                                      SUP00500
      IMFLG=I7                                                       SUP00510
      ICYIM=I8                                                       SUP00520
      ISTRIM=I9                                                      SUP00530
      IMTFLG=I10                                                     SUP00540
      MODYR1=I11                                                     SUP00550
      MODYR2=I12                                                     SUP00560
      SPD(1)=A1                                                      SUP00570
      SPD(2)=A1                                                      SUP00580
      SPD(3)=A1                                                      SUP00590
C                                                                    SUP00600
C                                                                    SUP00610
      IF(INIFLG.EQ.0) GO TO 100                                      SUP00620
      MYMRFG=0                                                       SUP00630
      MSFLG=1                                                        SUP00640
      ALTFLG=0                                                       SUP00650
      SP3FLG=1                                                       SUP00660
      NMHFLG=0                                                       SUP00670
      IDLFLG=1                                                       SUP00680
      UNFFLG=0                                                       SUP00690
      ICEVFG=1                                                       SUP00700
      IFORM=1                                                        SUP00710
      PRTFLG=0                                                       SUP00720
      INFLG=0                                                        SUP00730
      IF(MYMRFG.EQ.1) READ(2,50) MYM,MYR                             SUP00740
   50 FORMAT(2F4.1)                                                  SUP00750
      CALL TFCALX                                                    SUP00760
100   CONTINUE                                                       SUP00770
C                                                                    SUP00780
C**CHECK CALENDAR YEAR                                               SUP00790
      IF(CY.GE.70) GO TO 505                                         SUP00800
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      WRITE(IWRI,785)                                                    SUP00810
785   FORMAT(' ***ERROR: CALENDER YEAR RANGE IS 70 THRU 99')             SUP00820
      STOP                                                               SUP00830
505   CONTINUE                                                           SUP00840
      ICYPR = CY                                                         SUP00850
      IF(CY.GT.95) CY = 95                                               SUP00860
C                                                                        SUP00870
C**CHECK AMBIENT TEMPERATURE                                             SUP00880
      IF(TEMP.GE.0.0.AND.TEMP.LE.110.) GO TO 697                         SUP00890
      WRITE(IWRI,787)                                                    SUP00900
787   FORMAT(' ***ERROR: VALID TEMPERATURE RANGE IS 0-110 DEG.(F)')      SUP00910
      STOP                                                               SUP00920
697   CONTINUE                                                           SUP00930
C                                                                        SUP00940
C**CHECK INPUT SPEED(S)                                                  SUP00950
      IF(SP3FLG.EQ.1) GO TO 650                                          SUP00960
      IF(SP1.GT.0.) GO TO 620                                            SUP00970
      WRITE(IWRI,786)                                                    SUP00980
786   FORMAT(' ***ERROR: SPEED MUST BE POSITIVE')                        SUP00990
      STOP                                                               SUP01000
620   IF(SP1.GT.60.) SP1 = 60.                                           SUP01010
      IF(SP1.LT.5.) WRITE(IWRI,788)                                      SUP01020
788   FORMAT(' **WARNING: AVG. ROUTE SPEED LESS THAN 5 M.P.H.')          SUP01030
      GO TO 695                                                          SUP01040
C                                                                        SUP01050
650   CONTINUE                                                           SUP01060
      IF(SPD(1).GT.0.0.AND.SPD(2).GT.0.0.AND.SPD(3).GT.0.) GO TO 670     SUP01070
      WRITE(IWRI,786)                                                    SUP01080
      STOP                                                               SUP01090
670   CONTINUE                                                           SUP01100
      DO 671 I=1,3                                                       SUP01110
      IF(SPD(I).LT.5.) WRITE(IWRI,788)                                   SUP01120
671   IF(SPD(I).GT.60.) SPD(I) = 60.                                     SUP01130
C                                                                        SUP01140
695   CONTINUE                                                           SUP01150
C                                                                        SUP01160
C**END SPEED CHECK                                                       SUP01170
C                                                                        SUP01180
      IF(SP3FLG.EQ.1) GO TO 520                                          SUP01190
C**HERE TO DECOMPOSE SINGLE ENTERED SPEED INTO BAG SPEEDS                SUP01200
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C       SPD(1) = SP1*1.30                                                  SUP01210
C       SPD(2) = SP1*.825                                                  SUP01220
C       SPD(3) = SP1*1.30                                                  SUP01230
        SPD(1) = SP1                                                       SUP01240
        SPD(2) = SP1                                                       SUP01250
        SPD(3) = SP1                                                       SUP01260
C       SPD(1) = SP1*(1.3777386 - (PCCC*.30/79.42))                        SUP01270
C       SPD(2) = SP1*(.75935 + (PCHS*.175/72.72))                          SUP01280
C       SPD(3) = SPD(1)                                                    SUP01290
C                                                                          SUP01300
C       PCHSNC = PCCC - PCCO + PCHS                                        SUP01310
C       PCHSTR = 100. - PCCC - PCHS                                        SUP01320
C       SPD(1) = SP1*(1.41114406 - .00411144O6*PCCO)                       SUP01330
C       SPD(2) = SP1*(.6162276026 + .003837724*PCHSTR)                     SUP01340
C       SPD(3) = SP1*(1.44902449 - .00449024 49*PCHSNC)                    SUP01350
520     CONTINUE                                                           SUP01360
C                                                                          SUP01370
C                                                                          SUP01380
        IF(IREJN.NE.IRJOLD) CALL INITEX(NMYALT,ALTKOD)                     SUP01390
        IF(IREJN.NE.IRJOLD.AND.IMFLG.EQ.1) CALL LDVIMX                     SUP01400
        IRJOLD=IREJN                                                       SUP01410
        CALL EFCALX(CY,LNKDTA,VMTMIX,EFRETM,WTEDEF,COMCCC,IDLRTM,IDLWTD)   SUP01420
        IF(I13.EQ.1) CALL OUTPUT(ICYPR,EFRETM,WTEDEF,COMCCC,IDLRTM,        SUP01430
       &IDLWTD)                                                            SUP01440
        EMCRUZ(1)=EFRETM(2,1)                                              SUP01450
        EMCRUZ(2)=(EFRETM(2,2)+EFRETM(2,3))*0.5                            SUP01460
        EMCRUZ(3)=EFRETM(2,6)                                              SUP01470
        EMCRUZ(4)=EFRETM(2,4)                                              SUP01480
        EMCRUZ(5)=EFRETM(2,5)                                              SUP01490
        EMCRUZ(6)=WTFDEF(2)                                                SUP01500
        EMIDLE(1)=IDLRTM(2,1)                                              SUP01510
        EMIDLE(2)=(IDLRTM(2,2)+IDLRTM(2,3))*0.5                            SUP01520
        EMIDLE(3)=IDLRTM(2,6)                                              SUP01530
        EMIDLE(4)=IDLRTM(2,4)                                              SUP01540
        EMIDLE(5)=IDLRTM(2,5)                                              SUP01550
        EMIDLE(6)=IDLWTD(2)                                                SUP01560
        RETURN                                                             SUP01570
        END                                                                SUP01580
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      SUBROUTINE OUTPUT(CY,EFRETM,WTEDEF,COMCCC,IDLRTM,IDLWTD)                OUT00010
                                                                              OUT00020
C                                                                             OUT00030
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IRDFLG,SP2FLG,NMHFLG,IDLFLG,         OUT00040
     *              UNFFLG,MYMRFG,IMFLG,ICEVFG,PRTFLG,IFORM                  OUT00050
      COMMON/REGCOM/IREJN                                                     OUT00060
      COMMON/BEFCOM/BEF                                                       OUT00070
      COMMON/LNKCOM/SPD,TEMP,PCCO,PCHS,PCCC,VMTMIX                            OUT00080
      COMMON/ALTCOM/NMYALT,ALTKOD                                             OUT00090
      COMMON/MYMCOM/MYM,MYR,TF                                                OUT00100
      COMMON/JUNK1/AC,XLOAD,TRAILR,ABSHUM                                     OUT00110
      COMMON/JUNK2/HGWGT,HDWGT,HGCID,HDCID                                    OUT00120
      COMMON/RET1/ALHRET                                                      OUT00130
      COMMON/RET2/TRKRET(20,3,2)                                              OUT00140
      COMMON/PROJCM/PROJID                                                    OUT00150
      COMMON/IMCOM/ICYIM,ISTRIN,IMTFLG,MODYR1,MODYR2                          OUT00160
      COMMON/SP1COM/SP1,SPAV                                                  OUT00170
C                                                                             OUT00180
      INTEGER ALHFLG,TRKFLG,ALTFLG,ALTKOD(4,20),CY,VMFLAG,SP3FLG,             OUT00190
     *        NMHFLG,IDLFLG,UNFFLG,MYMRFG,PRTFLG                              OUT00200
      REAL VMTMIX(6),MYM(20,6),MYR(20,6),PNAM1(3),PNAM2(3),PNAM3(3)           OUT00210
      REAL SPD(3)                                                             OUT00220
      REAL EVPNAM(3),EXHHDR(3),IDLNM1(3),IDLNM2(3),IDLNM3(3)                  OUT00230
      REAL IDLRTM(3,6),IDLWTD(3),PNAMH(2)                                     OUT00240
      REAL IDLHDR(3),IDLHD2(4),REGN1(3),REGN2(3)                              OUT00250
      REAL COMPEF(20,3,6)                                                     OUT00260
      REAL ALHRET(20,4,3)                                                     OUT00270
      REAL A(20,3,3),U(20,3,3),L(3,3),H(3),XLOAD(3)                           OUT00280
      REAL EFRETM(3,6),WTEDEF(3),LNKDTA(7),PROJID(20)                         OUT00290
      REAL COMCCC(6),TF(20,6)                                                 OUT00300
      REAL BEF(20,26,3,6)                                                     OUT00310
      REAL YESNO(2)                                                           OUT00320
      EQUIVALENCE (SPD(1),LNKDTA(1))                                          OUT00330
C                                                                             OUT00340
      DATA PNAMH/'NON-','METH'/                                               OUT00350
      DATA PNAM1/'   T','EXHA','EXHA'/                                        OUT00360
      DATA PNAM2/'OTAL','UST ','UST '/                                        OUT00370
      DATA PNAM3/' HC ',' CO ','NOX '/                                        OUT00380
      DATA IDLNM1/'   I','   I','   I'/                                       OUT00390
      DATA IDLNM2/'DLE ','DLE ','DLE '/                                       OUT00400
      DATA IDLNM3/' HC ',' CO ','NOX '/
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      DATA EVPNAM/'   *','EVAP',' HC '/                                    OUT00410
      DATA IWRI,IWRUNF/6,9/                                                OUT00420
      DATA EXHHDR/'COMP','OSIT','E EM','ISSI','ON F','ACTO',               OUT00430
     *    'RS (','CM/M','ILE)'/                                            OUT00440
      DATA IDLHDR/'IDLE',' EMI','SSIO','N FA','CTOR','S (G',               OUT00450
     *   'M/MI','N)  '/                                                    OUT00460
      DATA IDLHD2/' HOT',' STA','BILI','ZED '/                             OUT00470
      DATA REGN1/'49-S','CALI','HI-A'/                                     OUT00480
      DATA REGN2/'TATE','F.  ','LT. '/                                     OUT00490
      DATA DASH/'----'/                                                    OUT00500
      DATA INITFL/1/                                                       OUT00510
      DATA YESNO/'NO  ','YES '/                                            OUT00520
C                                                                          OUT00530
C*************************************************************************OUT00540
      IF(NMHFLG.EQ.0) GO TO 77                                             OUT00550
      PNAM1(1) = PNAMH(1)                                                  OUT00560
      PNAM2(1) = PNAMH(2)                                                  OUT00570
77    CONTINUE                                                             OUT00580
C                                                                          OUT00590
      IF(INITFL.NE.1) GO TO 175                                            OUT00600
C**HERE FIRST TIME                                                         OUT00610
      INITFL=0                                                             OUT00620
      IF(IFORM.EQ.0) WRITE(IWRI,7011) PROJID                               OUT00630
      IF(IFORM.EQ.1) WRITE(IWRI,701) PROJID                                OUT00640
      WRITE(IWRI,7017) PNAM1(1),PNAM2(1),PNAM3(1)                          OUT00650
7017  FORMAT('0',2X,'*',2A4,A3,' EMISSION FACTORS INCLUDE ',               OUT00660
     *  'EVAP. HC EMISSION FACTORS')                                       OUT00670
C                                                                          OUT00680
      IF(IFORM.EQ.1) WRITE(IWRI,710)                                       OUT00690
175   CONTINUE                                                             OUT00700
C                                                                          OUT00710
      IF(IFORM.EQ.0) GO TO 888                                             OUT00720
C*************************************************************************OUT00730
C                                                                          OUT00740
      WRITE(IWRI,7029)                                                     OUT00750
      IF(SP3FLG.EQ.1)                                                      OUT00760
     *WRITE(IWRI,703) CY,TEMP,VMTMIX,REGN1(IREJN),REGN2(IREJN),SPD,SPAV,  OUT00770
     *  PCCO,PCHS,PCCC                                                     OUT00780
      IF(SP3FLG.EQ.0)                                                      OUT00790
     *WRITE(IWRI,7035) CY,TEMP,VMTMIX,REGN1(IREJN),REGN2(IREJN),SP1,SPD,  OUT00800
```

```
      *   SPAV,PCCO,PCHS,PCCC                                                    OUT00810
          IF(ALHFLG.EQ.1) WRITE(IWRI,704) AC,XLOAD,TRAILR,ABSHUM                 OUT00820
          IF(TRKFLG.EQ.1) WRITE(IWRI,705) HGWGT,HDWGT,HGCID,HDCID                OUT00830
          IF(IMFLG.EQ.1) WRITE(IWRI,7051) ICYIM,ISTRIN,YESNO(IMTFLG+1)           OUT00840
      C   IF(IMFLG.EQ.1) WRITE(IWRI,7052) MODYR1,MODYR2                         OUT00850
          WRITE(IWRI,7059) EXHHDP                                                OUT00860
          WRITE(IWRI,706)                                                        OUT00870
      C                                                                          OUT00880
          IF(PRTFLG.EQ.0.OR.PRTFLG.EQ.1)                                         OUT00890
         *WRITE(IWRI,707) PNAM1(1),PNAM2(1),PNAM3(1),(EFRETM(1,IM),IM=1,6),     OUT00900
         *  WTEDEF(1)                                                           OUT00910
          IF(ICEVFG.EQ.1) WRITE(IWRI,708) EVFNAM,COMCCC,DASH                     OUT00920
          IF(PRTFLG.EQ.0.OR.PRTFLG.EQ.2)                                         OUT00930
         *WRITE(IWRI,707) PNAM1(2),PNAM2(2),PNAM3(2),(EFRETM(2,IM),IM=1,6),     OUT00940
         *  WTEDEF(2)                                                           OUT00950
          IF(PRTFLG.EQ.0.OR.PRTFLG.EQ.3)                                         OUT00960
         *WRITE(IWRI,707) PNAM1(3),PNAM2(3),PNAM3(3),(EFRETM(3,IM),IM=1,6),     OUT00970
         *  WTEDEF(3)                                                           OUT00980
      C                                                                          OUT00990
          IF(IDLFLG.EQ.0) GO TO 200                                              OUT01000
          WRITE(IWRI,709) IDLHD2,IDLHDR                                          OUT01010
          WRITE(IWRI,707) (IDLNM1(IQ),IDLNM2(IQ),IDLNM3(IQ),(IDLRTM(IQ,IM),     OUT01020
         *  IM=1,6),IDLWTD(IQ),IQ=1,3)                                          OUT01030
      200 CONTINUE                                                               OUT01040
      C                                                                          OUT01050
          WRITE(IWRI,710)                                                        OUT01060
      C                                                                          OUT01070
          GO TO 899                                                              OUT01080
      C                                                                          OUT01090
      C*****************************************************************       OUT01100
      C                                                                          OUT01110
      888 CONTINUE                                                               OUT01120
             IPP1=PRTFLG                                                         OUT01130
             IPP2=PRTFLG                                                         OUT01140
             IF(PRTFLG.EQ.0) IPP1=1                                              OUT01150
             IF(PRTFLG.EQ.0) IPP2=3                                              OUT01160
          DO 1203 IPNX=IPP1,IPP2                                                 OUT01170
          WRITE(IWRI,79080) IREJN,CY,SPD,TEMP,PCCO,PCHS,PCCC,IPNX,               OUT01180
         *  (EFRETM(IPNX,IM),IM=1,6),VMTMIX,WTEDEF(IPNX)                        OUT01190
                                                                                 OUT01200
```

```
1203  CONTINUE                                                          OUT01210
790 ED FORMAT(1X,I1,1X,I2,1X,F4.1,'/',F4.1,'/',F4.1,1X,                 OUT01220
     *  F3.0,1X,F5.1,1X,F5.1,1X,F5.1,1X,I1,6F6.1,6F6.3,F7.2)            OUT01230
C                                                                       OUT01240
899   CONTINUE                                                          OUT01250
C                                                                       OUT01260
C                                                                       OUT01270
C*************************************************************************OUT01280
C                                                                       OUT01290
C                                                                       OUT01300
C     IF(UNFFLG.EQ.1) WRITE(IWRUNF) EFRETM,WTEDEF                       OUT01310
C*************************************************************************OUT01320
C                                                                       OUT01330
C*************************************************************************OUT01340
701   FORMAT('1',20A4/)                                                 OUT01350
7011  FORMAT('1',20A4)                                                  OUT01360
C                                                                       OUT01370
7025  FORMAT(32X,'VEH. TYPE:  LDV   LDT1  LDT2  HDG   HDD   MC')       OUT01380
C                                                                       OUT01390
703   FORMAT('  CAL. YEAR: 19',I2,5X,'TEMP: ',F4.1,                     OUT01400
     *  '(F)',8X,5(F5.3,'/'),F5.3,                                      OUT01410
     *  /1X,' REGION: ',2A4,4X,F4.1,'/',F4.1,'/',F4.1,                  OUT01420
     *  ' MPH ','(',F4.1,') ',7X,'  ',F5.1,'/',F5.1,'/',F5.1 )          OUT01430
C                                                                       OUT01440
7035  FORMAT('  CAL. YEAR: 19',I2,5X,'TEMP: ',F4.1,                     OUT01450
     *  '(F)',8X,5(F5.3,'/'),F5.3,                                      OUT01460
     *  /1X,' REGION: ',2A4,4X,F4.1,':',F4.1,'/',F4.1,'/',F4.1,         OUT01470
     *  ' MPH ','(',F4.1,') ',3X,'  ',F5.1,'/',F5.1,'/',F5.1 )          OUT01480
704   FORMAT('  AC:',F6.2,2X,'XLOAD:',F7.2,2X,'TRAILR:',                OUT01490
     *  F7.2,2X,'ADSHUM:',F7.2)                                         OUT01500
C                                                                       OUT01510
705   FORMAT('  HCWGT:',F7.0,2X,'HDWGT:',F7.0,2X,'HGCID:',              OUT01520
     *  F7.2,2X,'HDCID:',F7.2)                                          OUT01530
C                                                                       OUT01540
7051  FORMAT('  LDV I/M PROGRAM STARTING IN 19',I2,                     OUT01550
     *  ', STRINGENCY LEVEL ',I2,'%, MECH. TRAINING: ',A4)              OUT01560
C                                                                       OUT01570
7052  FORMAT('  I/M PROG. BENEFITS APPLY ONLY TO MODEL YEARS 19',       OUT01580
     *  I2,' THROUGH 19',I2)                                            OUT01590
7055  FORMAT('0',22X,9A4)                                               OUT01600
C
706   FORMAT(' ',15X,'LDV      LDT1     LDT2     HDG      HDD    ',
```

```
     *  '     MC      ALL MODES')                                          OUT01610
C                                                                          OUT01620
707   FORMAT((1X,2A4,A3,':',6(F7.2,2X),1X,F8.2))                           OUT01630
C                                                                          OUT01640
708   FORMAT(1X,2A4,A3,':',6(F7.2,2X),5X,A4)                               OUT01650
C                                                                          OUT01660
709   FORMAT('0',16X,4A4,8A4)                                              OUT01670
C                                                                          OUT01680
710   FORMAT(' ------------------------------------------------',          OUT01690
     *'-----------------------------------------')                          OUT01700
C                                                                          OUT01710
C                                                                          OUT01720
C     DEBUG SUBCHK                                                         OUT01730
      RETURN                                                               OUT01740
      END                                                                  OUT01750
```

```
      SUBROUTINE EFCALX(CY,LNKDTA,MS,EFRETM,WTEDEF,CCRETM,IDLRTM,IDLWTD)EFC00010
C                                                                       EFC00020
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IPDFLG,SP3FLG,NMHFLG,IDLFLG,   EFC00030
     *              UNFFLG,MYMRFG,IMFLG,ICFVFG,PRTFLG,IFORM            EFC00040
      COMMON/CEVCOM/CCEV                                                EFC00050
      COMMON/REGCOM/IREJN                                               EFC00060
      COMMON/BEFCOM/BEF                                                 EFC00070
      COMMON/IDLCOM/IDLBEF                                              EFC00080
      COMMON/MYMCOM/MYM,MYR,TF                                          EFC00090
C                                                                       EFC00100
      INTEGER MYP , P , CYP                                             EFC00110
      INTEGER ALHFLG,TRKFLG,ALTFLG,ALTKOD(4,20),CY,MSFLG,SP3FLG,        EFC00120
     *        NMHFLG,IDLFLG,UNFFLG,MYMRFG,PRTFLG                        EFC00130
C                                                                       EFC00140
      REAL IDLBEF(20,26,3,6),IDLFAC(20,3,6),IDLCMP(3,6),IDLWTD(3)       EFC00150
      REAL COMPCC(20,6),CCRETM(6)                                       EFC00160
      REAL CFRET(20,3,6)                                                EFC00170
      REAL      BEF(20,26,3,6),      CCEV(45,6),                        EFC00180
     *          CEFLDV(3),           CEFLT1(3),                         EFC00190
     *          CEFLT2(3),           CEFHDC(3),                         EFC00200
     *          CEFHDD(3),           CEFMCC(3),                         EFC00210
     *          EFRETM(3,6),         COMPEF(20,3,6),                    EFC00220
     *          COMPMY(3,6),         LNKDTA(7),                         EFC00230
     *          MYM(20,6),           MYR(20,6),                         EFC00240
     *          MS(6),               PCCO,                              EFC00250
     *          PCCC,                PCHS,                              EFC00260
     *          SPD(3),              TEMP,                              EFC00270
     *          TF(20,6),            TFNORM(6),                         EFC00280
     *          WTEDEF(3)                                               EFC00290
      DIMENSION R1(20,3,6),R2(20,3,6),XISPD(3)                          EFC00300
C                                                                       EFC00310
C**********************************************************************EFC00320
C                                                                       EFC00330
      SPD(1)  = LNKDTA(1)                                               EFC00340
      SPD(2)  = LNKDTA(2)                                               EFC00350
      SPD(3)  = LNKDTA(3)                                               EFC00360
      TEMP    = LNKDTA(4)                                               EFC00370
      PCCO    = LNKDTA(5)                                               EFC00380
                                                                        EFC00390
                                                                        EFC00400
```

```
      PCHS    = LNKDTA(6)                                                    EFC00410
      PCCC    = LNKDTA(7)                                                    EFC00420
                                                                             EFC00430
C                                                                            EFC00440
C                                                                            EFC00450
            CALL BIGCFX(CY,TEMP,PCCO,PCHS,PCCC,SPD,CFRET)                    EFC00460
C                                                                            EFC00470
      XISPD(1)=5.0                                                           EFC00480
      XISPD(2)=5.0                                                           EFC00490
      XISPD(3)=5.0                                                           EFC00500
      XITEMP=75.0                                                            EFC00510
      XIPCCO=0.0                                                             EFC00520
      XIPCHS=0.0                                                             EFC00530
      XIPCCC=0.0                                                             EFC00540
      CALL BIGCFX(CY,TEMP,PCCO,PCHS,PCCC,XISPD,R1)                           EFC00550
      CALL BIGCFX(CY,XITEMP,XIPCCO,XIPCHS,XIPCCC,XISPD,R2)                   EFC00560
C                                                                            EFC00570
      CYP = CY - 69                                                          EFC00580
C                                                                            EFC00590
C                                                                            EFC00600
      DO 500 P = 1,3                                                         EFC00610
            WIEDEF(P) = 0.0                                                  EFC00620
            IDLWTD(P) = 0.0                                                  EFC00630
         DO 400 M = 1,6                                                      EFC00640
            COMPMY(P,M) = 0.0                                                EFC00650
            IDLCMP(P,M) = 0.0                                                EFC00660
      IF(P.EQ.1) CCRETM(M)=0.                                                EFC00670
            DO 300 I = 1,20                                                  EFC00680
C                                                                            EFC00690
      MYP = CY -(20-1) - 50                                                  EFC00700
C                                                                            EFC00710
            IF (P.EQ.1)  GO TO 333                                           EFC00720
            GO TO 444                                                        EFC00730
C                                                                            EFC00740
333   COMPEF(I,P,M)=(BEF(I,CYP,P,M)*CFRET(I,P,M)+ CCEV(MYP,M))*TF(I,M)       EFC00750
      COMPCC(I,M)   =CCEV(MYP,M)*TF(I,M)                                     EFC00760
      GO TO 555                                                              EFC00770
444   COMPEF(I,P,M)=(BEF(I,CYP,P,M)*CFRET(I,P,M)                )*TF(I,M)   EFC00780
C                                                                            EFC00790
555   CONTINUE                                                               EFC00800
C
```

```
      IDLFAC(I,P,M)=IDLBEF(I,CYF,P,M)*RT(I,P,M)*TF(I,M)/R2(I,P,M)        EFC00810
C                                                                        EFC00820
      COMPMY(P,M) = COMPMY(P,M) + COMPEF(I,P,M)                          EFC00830
      IDLCMP(P,M) = IDLCMP(P,M) + IDLFAC(I,P,M)                          EFC00840
      IF(P.EQ.1) CCRETM(M) = CCRETM(M) + COMPCC(I,M)                     EFC00850
C                                                                        EFC00860
300         CONTINUE                                                     EFC00870
      WTEDEF(P) = WTEDEF(P) + COMPMY(P,M)*MS(M)                          EFC00880
      IDLWTD(P) = IDLWTD(P) + IDLCMP(P,M)*MS(M)                          EFC00890
400      CONTINUE                                                        EFC00900
C                                                                        EFC00910
500   CONTINUE                                                           EFC00920
C                                                                        EFC00930
      DO 600 M = 1,6                                                     EFC00940
      DO 600 P = 1,3                                                     EFC00950
        EFRETM(P,M) = COMPMY(P,M)                                        EFC00960
        IDLRTM(P,M) = IDLCMP(P,M)                                        EFC00970
600   CONTINUE                                                           EFC00980
C                                                                        EFC00990
C                                                                        EFC01000
      RETURN                                                             EFC01010
C                                                                        EFC01020
      END                                                                EFC01030
```

```
      SUBROUTINE BIGCFX(CY,T,FCCO,PCHS,PCCC,SPD,CFRET)                  BIG00010
C                                                                       BIG00020
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IRDFLG,SP3FLG,NMHFLG,IDLFLG,   BIG00030
     *              UNFFLG,MYMRFG,IMFLG,ICEVFG,PRTFLG,IFORM            BIG00040
      COMMON/ALTCOM/NMYALT,ALTKOD                                       BIG00050
      COMMON/REGCOM/IREJN                                               BIG00060
      COMMON/JUNK1/AC,XLOAD,TRAILR,APSHUM                               BIG00070
      COMMON/JUNK2/HGWGT,HDWGT,HGCID,HDCID                              BIG00080
      COMMON/RET1/ALHRET(20,4,3)                                        BIG00090
      COMMON/RET2/TRKRET(20,7,2)                                        BIG00100
      COMMON/SP1COM/SP1,SPAV                                            BIG00110
      COMMON/MYMCOM/MYM,MYR,TF                                          BIG00120
C                                                                       BIG00130
      INTEGER ALHFLG,TRKFLG,ALTFLG,ALTKOD(4,20),CY,MSFLG,SP3FLG,        BIG00140
     *        NMHFLG,IDLFLG,UNFFLG,MYMRFG,PRTFLG                        BIG00150
      INTEGER INITFL,IEQNAR(45,7,3,4),HDINDX(45,7)                      BIG00160
      INTEGER G(45,3,4)                                                 BIG00170
C IN G, 1ST INDEX IS MY, 2ND IS REGION, AND 3RD IS MODE                 BIG00180
C IN IEQNAR, 2ND INDEX IS POLLUTANT, 3RD IS REGION, 4TH IS MODE         BIG00190
C IN HDINDX, 2ND INDEX IS REGION (NOT FUNCTION OF POL. OR MODE)         BIG00200
C                                                                       BIG00210
      REAL COMCCC(6),A(20,3,3),B(20,3,3),                               BIG00220
     *  L(3,3),H(3)                                                     BIG00230
      REAL XLOAD(3)                                                     BIG00240
      REAL COMPEF(20,3,6)                                               BIG00250
      REAL W,T,SPD(3),SPB(3),CFRET(20,3,6)                              BIG00260
      REAL D1(4,3),D2(4,3)                                              BIG00270
      REAL MIDDLE,LEFT                                                  BIG00280
      REAL SPBACK(18,3,3),SPPOT(18,3,3)                                 BIG00290
      REAL ATR(4,3,2),BTR(4,3,2),CTR(4,3,2)                             BIG00300
      REAL C(4,8,3)                                                     BIG00310
      REAL CUMMIL(20,6),MYM(20,6),MYR(20,6),TF(20,6)                    BIG00320
      INTEGER MAXAGE(4)                                                 BIG00330
C                                                                       BIG00340
      DATA MAXAGE/19,19,19,19/                                          BIG00350
      DATA INITFL/1/                                                    BIG00360
C                                                                       BIG00370
C***********************************************************************BIG00380
C                                                                       BIG00390
C**COEFFICIENTS IN SPEED/TEMP/COLD START FACTOR: EQN,INDEX,POL.         BIG00400
```

```
      DATA C/                                                                  BIG00410
     *   2.931000, 2.931000, 2.433900, 1.993400,                               BIG00420
     *  -0.014779,-0.014779,-0.023591,-0.022269,                               BIG00430
     *   0.873,-2.410, 0.623,-0.032, 0.569, 0.863, 0.301, 0.445,               BIG00440
     *   4.750, 2.430, 1.110, 0.497, 0.393, 0.555, 0.284, 0.357,               BIG00450
     *   5.690, 2.610, 1.050, 0.243, 0.471, 0.597, 0.270, 0.175,               BIG00460
     *   5.654800, 5.654800, 5.546000, 4.239100,                               BIG00470
     *  -0.015965,-0.015965,-0.028945,-0.017522,                               BIG00480
     *  -14.74,-33.89, 11.29, -0.20,  9.62,  9.77,                             BIG00490
     *    4.24,  6.99, 42.84, 25.26, 15.85,  4.12,                             BIG00500
     *    5.76,  4.71,  2.34,  2.20, 57.57, 75.90,                             BIG00510
     *   21.17,  3.96,  7.74,  6.70,  3.13,  2.12,                             BIG00520
     *  -0.10E+03,-0.10E+03,-0.10E+03,-0.10E+03,                               BIG00530
     *   0.0  , 0.0  , 0.0  , 0.0  , 1.140, 1.160,                             BIG00540
     *   3.260, 3.050, 0.0  , 0.0  , 0.335, 0.318,                             BIG00550
     *   1.250, 1.260, 2.990, 2.880, 0.0  , 0.0  ,                             BIG00560
     *   0.184, 0.180, 0.810, 0.800, 1.890, 2.010,                             BIG00570
     *   0.0  , 0.0  , 0.116, 0.126  /                                         BIG00580
C                                                                             BIG00590
C**COEFFICIENTS IN DENOMINATOR OF SPEED/TEMP/COLD START FACTOR                 BIG00600
      DATA D1/5.67,2.8,1.38,.54,56.43,36.4,23.7,6.98,1.,1.,2.47,2.46/         BIG00610
      DATA D2/.47,.64,.28,.28,7.59,6.79,3.14,3.14,0.,0.,.18,.18/              BIG00620
C                                                                             BIG00630
C**SPEED CORRECTION FACTOR INDEX: CAL. YR., REGION, MODE                      BIG00640
      DATA G/15*2, 2, 2, 4, 5, 6, 7,14,17,17,18,18,18,18*18,                  BIG00650
     *       15*2, 3, 3, 4, 5, 6, 7,13,16,16,18,18,18,18*18,                  BIG00660
     *       15*1, 1, 1, 8, 9,10,11,12,15,15,18,18,18,18*18,                  BIG00670
     *                                                                        BIG00680
     *       15*2, 2, 2, 4, 5, 6, 7,14,17,17,18,18,18,18*18,                  BIG00690
     *       15*2, 2, 2, 4, 5, 6, 7,13,16,16,18,18,18,18*18,                  BIG00700
     *       15*1, 1, 1, 8, 9,10,11,12,15,15,18,18,18,18*18,                  BIG00710
     *                                                                        BIG00720
     *       28*14,17*18,                                                     BIG00730
     *       27*13,18*18,                                                     BIG00740
     *       28*12,17*18,                                                     BIG00750
     *                                                                        BIG00760
     *       15*2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,18*17,                  BIG00770
     *       15*2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,18*16,                  BIG00780
     *       15*1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,18*15 /                 BIG00790
C                                                                             BIG00800
```

```
      DATA IEQNAR/17*1,7*2,5*3,16*4,   17*1,7*2,5*3,16*4,
     *            17*1,7*2,2*3,19*4,   15*1,9*2,     21*4,
     *            15*1,9*2,     21*4,   15*1,9*2,     21*4,
     *            17*1,7*2,5*3,16*4,   17*1,7*2,5*3,16*4,
     *            17*1,7*2,2*3,19*4,
     *            17*1,7*2,21*3,       17*1,7*2,21*3,
     *            17*1,7*2,21*3,       17*1,7*2,     21*4,
     *            17*1,7*2,     21*4,   17*1,7*2,     21*4,
     *            17*1,7*2,21*3,       17*1,7*2,21*3,
     *            17*1,7*2,21*3,
     *            28*2,17*3,           28*2,17*3,
     *            28*2,17*3,           27*2,18*4,
     *            27*2,18*4,           27*2,18*4,
     *            28*2,17*3,           28*2,17*3,
     *            28*2,17*3,
     *            27*1,18*2,27*1,18*2,27*1,18*2,
     *            27*1,18*2,27*1,18*2,27*1,18*2,
     *            27*1,18*2,27*1,18*2,27*1,18*2  /
     *
C
      DATA HDINDX/19*1,4*2,5*3,17*4,
     *            19*1,4*2,1*3,21*4,
     *            19*1,4*2,5*3,17*4   /
C
C
C*****************************************************************
C
      IF(INITFL.NE.1) GO TO 177
C  HERE 1ST TIME
      INITFL = 0
      SPB(1) = 26.0
      SPB(2) = 16.0
      SPB(3) = 26.0
      CALL SPFCLX(SPB,SPBOT)
C
C
      CALL GETCUM(CUMMIL)
C
C
C*****************************************************************
C
```

```
177   CONTINUE                                                                  BIG01210
C                                                                               BIG01220
      CALL SPFCLX(SPD,SPBACK)                                                   BIG01230
C                                                                               BIG01240
C                                                                               BIG01250
      IF(ALHFLG.EQ.1) CALL  ALUH(CY,AC,XLOAD,TRAILR,PCCO,PCCC,ABSHUM)           BIG01260
C                                                                               BIG01270
C*****************************************************************************BIG01280
C                                                                               BIG01290
C                                                                               BIG01300
      FCO = PCCO*.01                                                            BIG01310
      FHC = PCHS*.01                                                            BIG01320
      FCC = PCCC*.01                                                            BIG01330
C                                                                               BIG01340
C**FRACTION COLD OP(NON-CAT): FCO                                               BIG01350
C**FRACTION HOT START(CAT):   FHC                                               BIG01360
C**FRACTION COLD OP(CAT)   :   FCC                                              BIG01370
C**FRACTION HOT START(NON-CAT): FHO                                             BIG01380
      FHO = (FCC-FCO) + FHC                                                     BIG01390
C                                                                               BIG01400
      DO 500 I = 1,20                                                           BIG01410
C                                                                               BIG01420
         MY = CY - (20-I)                                                       BIG01430
         MYC = MY - 50                                                          BIG01440
         IAGE = CY - MY                                                         BIG01450
         AGE = IAGE                                                             BIG01460
C                                                                               BIG01470
C**********************                                                        BIG01480
      IF(MYC.LE.0) STOP                                                         BIG01490
C>>>>>>>>>>>>>>>>>>>>>>>>                                                       BIG01500
C                                                                               BIG01510
      DO 500 IMODE = 1,4                                                        BIG01520
C                                                                               BIG01530
      IMOD4 = IMODE                                                             BIG01540
      IF(IMODE.EQ.4) IMOD4 = 6                                                  BIG01550
      IAGEM = IAGE                                                              BIG01560
         MAX = MAXAGE(IMODE)                                                    BIG01570
      IF(IAGEM.GT.MAX) IAGEM = MAX                                              BIG01580
      IF(IAGEM.EQ.0) VMTAGE=0.0                                                 BIG01590
      IF(IAGEM.GT.0) VMTAGE=CUMMIL(IAGEM,IMOD4)*.0001                           BIG01600
C
```

```
            IGX = G(MYC,IREJN,IMODE)                                        BIG01610
C                                                                           BIG01620
      DO 500 IP = 1,7                                                       BIG01630
C                                                                           BIG01640
C**DEFAULT                                                                  BIG01650
C                                                                           BIG01660
      IEQN = IEQNAR(MYC,IP,IREJN,IMODE)                                     BIG01670
C                                                                           BIG01680
C**************************************                                     BIG01690
C                                                                           BIG01700
      IF(ALTFLG.EQ.0) GO TO 777                                             BIG01710
C                                                                           BIG01720
      DO 450 ICH = 1,NMYALT                                                 BIG01730
      IF(ALTKOD(1,ICH).EQ.MY) GO TO 877                                     BIG01740
450   CONTINUE                                                              BIG01750
      GO TO 550                                                             BIG01760
877   CONTINUE                                                              BIG01770
C**HERE FOR ALTERATION                                                      BIG01780
      IALT = ALTKOD(IP+1,ICH)                                               BIG01790
C                                                                           BIG01800
      IF(IALT.EQ.0) GO TO 777                                               BIG01810
      IF(IALT.EQ.1) IEQN = 3                                                BIG01820
      IF(IALT.GT.1) IEQN = 4                                                BIG01830
777   CONTINUE                                                              BIG01840
C                                                                           BIG01850
C**************************************                                     BIG01860
C                                                                           BIG01870
550   CONTINUE                                                              BIG01880
C                                                                           BIG01890
      FACL = FCO                                                            BIG01900
      FACM = FMO                                                            BIG01910
      IF(IEQN.LT.2) GO TO 888                                               BIG01920
      FACL = FCC                                                            BIG01930
      FACM = FMC                                                            BIG01940
888   FACR = (1.0 - FACL - FACM)                                            BIG01950
C                                                                           BIG01960
C**************************************************************************BIG01970
C                                                                           BIG01980
      DENOM = D1(IEQN,IP) + D2(IEQN,IP)*VMTAGE                              BIG01990
C                                                                           BIG02000
```

```
      LEFT = FACL * (EXP(C(IEQN,1,IP)+T*(C(IEQN,2,IP)) + C(IEQN,3,IP) +   BIG02010
     *  C(IEQN,4,IP)*VMTAGE) * SPRACK(2,1,IP)/SPROT(2,1,IP)               BIG02020
                                                                          BIG02030
C                                                                         BIG02040
C                                                                         BIG02050
      MIDDLE=FACM*(C(IEQN,5,IP)+C(IEQN,6,IP)*VMTAGE)                      BIG02060
     *    *SPRACK(IGX,2,IP)/SPROT(IGX,2,IP)                              BIG02070
C                                                                         BIG02080
C                                                                         BIG02090
      RIGHT=FACR*(C(IEQN,7,IP)+C(IEQN,8,IP)*VMTAGE)                       BIG02100
     *     *SPRACK(IGX,2,IP)/SPROT(IGX,2,IP)                            BIG02110
C                                                                         BIG02120
      TOP = LEFT + MIDDLE + RIGHT                                         BIG02130
C                                                                         BIG02140
C                                                                         BIG02150
      FACTOR = TOP/DENOM                                                  BIG02160
C                                                                         BIG02170
      IF(ALHFLG.EQ.1) FACTOR = FACTOR*ALHRET(I,IMODE,IP)                  BIG02180
C                                                                         BIG02190
      IMOD2 = IMODE                                                       BIG02200
C                                                                         BIG02210
      IF(IMODE.EQ.4) IMOD2 = 6                                            BIG02220
C                                                                         BIG02230
      CFRET(I,IP,IMOD2) = FACTOR                                          BIG02240
C                                                                         BIG02250
500   CONTINUE                                                            BIG02260
C                                                                         BIG02270
C**************************************************************************BIG02280
C                                                                         BIG02290
C                                                                         BIG02300
C    FOR MODES 4 AND 5                                                    BIG02310
C                                                                         BIG02320
C                                                                         BIG02330
      DATA ATR/ 2.42, 1.14, 1.56, 1.54,                                   BIG02340
     *          1.74, 1.54, 1.24, 0.62,                                   BIG02350
     *          .851, .812, .820, .764,                                   BIG02360
     *          0.94, 0.94,  .820, 1.20,                                  BIG02370
     *          1.44, 1.44,  1.20, 1.44,                                  BIG02380
     *          0.62, 0.62,  0.72, 1.00  /                                BIG02390
C                                                                         BIG02400
      DATA BTR/ -.157, -.065,  -.096, -.071,
```

```
     *          -.117, -.097,  -.078, -.039,                                  BIG02410
     *          .0074, .0094,  .0081, .0120,                                  BIG02420
     *          -.055, -.055,  -.051, -.072,                                  BIG02430
     *          -.092, -.092,  -.072, -.089,                                  BIG02440
     *          -.047, -.043,  -.054, -.074  /                                BIG02450
C                                                                              BIG02460
      DATA CTR/ .0016, .0004, .0009, -.0003,                                   BIG02470
     *          .0015, .0010, .0009, .0004,                                   BIG02480
     *          .0000, .0000, .0000, .0000,                                   BIG02490
     *          .0004, .0004,  .0005, .0006,                                  BIG02500
     *          .0010, .0010,  .0006, .0008,                                  BIG02510
     *          .0006, .0006,  .0009, .0012  /                                BIG02520
C                                                                              BIG02530
      IF(TRKFLG.EQ.1) CALL TRKOFF(CY,HGWGT,HDWGT,HGCID,HDCID)                  BIG02540
C                                                                              BIG02550
C     IF(SP3FLG.EQ.0) SPAV = SPD(1)/(1.3777386 - (PCCC*.30/79.42))             BIG02560
      IF(SP3FLG.EQ.0) SPAV = SP1                                               BIG02570
C     IF(SP3FLG.EQ.1) SPAV = SPD(1)/(1.41114406 - (PCCC*.0041114406))          BIG02580
      IF(SP3FLG.EQ.1) SPAV = SPD(2)                                            BIG02590
C     IF(SP3FLG.EQ.1) SPAV = AMIN1(SPD(1),SPD(2))                              BIG02600
C***ELIMINATE TWO LINES ABOVE                                                  BIG02610
C                                                                              BIG02620
C                                                                              BIG02630
      DO 700 IMODE = 4,5                                                       BIG02640
      IM = IMODE-3                                                             BIG02650
         DO 70J IP = 1,3                                                       BIG02660
C                                                                              BIG02670
      IMY1 = CY-19                                                             BIG02680
           .   DO 700 IMY = IMY1,CY                                            BIG02690
      IMYP = IMY - 50                                                          BIG02700
      IF(IMYP.LT.1) IMYP=1                                                     BIG02710
C                                                                              BIG02720
              IX = 20-(CY-IMY)                                                 BIG02730
C                                                                              BIG02740
          INDX = HDINDX(IMYP,IREJN)                                            BIG02750
C                                                                              BIG02760
      IF(IP.EQ.3.AND.IMODE.EQ.4) GO TO 720                                     BIG02770
C                                                                              BIG02780
      CFRET(IX,IP,IMODE) = EXP(ATR(INDX,IP,IM) +                               BIG02790
     *  PTR(INDX,IP,IM)*SPAV + CTR(INDX,IP,IM)*SPAV*SPAV)                      BIG02800
```

```
C                                                                       BIG02810
      GO TO 688                                                         BIG02820
720   CONTINUE                                                          BIG02830
C                                                                       BIG02840
      CFRET(IX,IP,IMODE) = ATR(INDX,IP,IM) + BTR(INDX,IP,IM)*SPAV       BIG02850
C                                                                       BIG02860
688   CONTINUE                                                          BIG02870
C                                                                       BIG02880
      IF(TRKFLG.EQ.1) CFRET(IX,IP,IMODE) = CFRET(IX,IP,IMODE)*          BIG02890
     *                                     TRKRET(IX,IP,IM)           BIG02900
C                                                                       BIG02910
700   CONTINUE                                                          BIG02920
      RETURN                                                            BIG02930
C                                                                       BIG02940
C     DEBUG SUBCHK                                                      BIG02950
      END                                                               BIG02960
```

```
      SUBROUTINE INITEX( NMYALT , ALTKOD )                              INX00010
C                                                                       INX00020
      INTEGER ALHFLG,TRKFLG,ALTFLG,ALTKOD(4,20),CY,MSFLG,SP3FLG,        INX00030
     *        NMHFLG,IDLFLG,UNFFLG,MYMRFC                               INX00040
C                                                                       INX00050
      CALL REFGEN                                                       INX00060
C                                                                       INX00070
      CALL CCEVAX                                                       INX00080
C                                                                       INX00090
      IF (ALTFLG.EQ.1) CALL FFALTX( NMYALT,ALTKOD )                     INX00100
C                                                                       INX00110
C                                                                       INX00120
      RETURN                                                            INX00130
C                                                                       INX00140
      END                                                               INX00150
```

```
      SUBROUTINE TFCALX                                                  TFC00010
C                                                                        TFC00020
      COMMON/MYMCOM/MYM,MYR,TF                                           TFC00030
      REAL TFNORM(6),MYM(20,6),MYR(20,6),TF(20,6)                        TFC00040
C                                                                        TFC00050
      DO 850 M = 1,6                                                     TFC00060
         TFNORM(M) = 0.0                                                 TFC00070
         DO 810 I = 1,20                                                 TFC00080
810         TFNORM(M) = TFNORM(M) + MYM(I,M)*MYR(I,M)                    TFC00090
         DO 820 I = 1,20                                                 TFC00100
820         TF(21-I,M) = ( MYM(I,M)*MYR(I,M) )/TFNORM(M)                 TFC00110
C                                                                        TFC00120
850   CONTINUE                                                           TFC00130
C                                                                        TFC00140
      RETURN                                                             TFC00150
C                                                                        TFC00160
C     DEBUG SUBCHK                                                       TFC00170
C                                                                        TFC00180
      END                                                                TFC00190
```

```
      SUBROUTINE SPECLX(SPARA,SPBACK)                                   SPE00010
      COMMON/ACOM/A                                                     SPE00020
      REAL SPARA(3),SPBACK(18,3,3),A(6,18,3)                            SPE00030
C                                                                       SPE00040
      DO 30 IP = 1,3                                                    SPE00050
         DO 20 IG = 1,18                                                SPE00060
            IGG = IG                                                    SPE00070
           DO 10 IS = 1,3                                               SPE00080
              SUM = A(6,IGG,IP)                                         SPE00090
              S = SPARA(IS)                                             SPE00100
             DO 5 I = 1,5                                               SPE00110
              SUM = SUM*S + A(6-I,IGG,IP)                               SPE00120
5            CONTINUE                                                   SPE00130
            SCF=EXP(SUM)                                                SPE00140
            IF(IP.EQ.3) SCF=SUM                                         SPE00150
            SPBACK(IG,IS,IP) = SCF                                      SPE00160
10         CONTINUE                                                     SPE00170
20       CONTINUE                                                       SPE00180
30    CONTINUE                                                          SPE00190
      RETURN                                                            SPE00200
C     DEBUG SUBCHK                                                      SPE00210
      END                                                               SPE00220
```

```
      SUBROUTINE BEFGEN
C
      COMMON/FLGCOM/ALTFLG,ALHFLG,TRKFLG,IRDFLG,SP3FLG,NMHFLG,IDLFLG,
     *              UNFFLG,MYMPFG,IMFLG,ICEVFG,PRTFLG,IFORM
      COMMON/REGCOM/IREJN
      COMMON/BEFCOM/BEF
      COMMON/BASECM/BASE3R
      COMMON/DELCOM/DEL3R
      COMMON/IDLBCM/IDLB3R
      COMMON/IDLDCM/IDEL3R
      COMMON/IDLCOM/IDLBEF
      COMMON/INDXCM/INDX3R
      COMMON/MYMCOM/MYM,MYR,TF
C
      REAL BASE3R(10,3,6,3),DEL3R(10,3,6,3)
      REAL IDLB3R(10,3,6,3),IDEL3R(10,3,6,3)
      REAL NONMTH(45,6)
      REAL BEF(20,26,3,6),IDLBEF(20,26,3,6)
      REAL CUMMIL(20,6),MYM(20,6),MYR(20,6),TF(20,6)
C
      INTEGER ALHFLG,TRKFLG,ALTFLG,MSFLG,SP3FLG,
     *        NMHFLG,IDLFLG,UNFFLG,MYMPFG,PRTFLG
      INTEGER INDX3R(30,3,6,3)
      INTEGER MAXAGE(6)
C
      DATA MAXAGE/19,19,19,19,19,19/
      DATA NONMTH/
     *            24*.95 , 21*.85 ,
     *            24*.95 , 21*.85 ,
     *            24*.95 ,  4*.95 , 17*.85 ,
     *            24*.95 ,  8*.95 , 13*.85 ,
     *            45*.98 ,
     *            45*.95                    /
C
C*****************************************************************
C
      CALL GETCUM(CUMMIL)
C
C*****************************************
C
```

```
      DO 100 IMODE=1,6                                                    BEF00410
C                                                                         BEF00420
        MAX = MAXAGE(IMODE)                                               BEF00430
C                                                                         BEF00440
      DO 100 ICY = 70,95                                                  BEF00450
      DO 100 IP = 1,3                                                     BEF00460
        IMY1=ICY-19                                                       BEF00470
        IMY13=ICY                                                         BEF00480
        ICYP=ICY-69                                                       BEF00490
C                                                                         BEF00500
      DO 100 MY = IMY1,IMY13                                              BEF00510
        IMYP =  MY - 50                                                   BEF00520
C                                                                         BEF00530
        IAGE=ICY - MY                                                     BEF00540
C                                                                         BEF00550
      IF(IAGE.GT.MAX) IAGE = MAX                                          BEF00560
C                                                                         BEF00570
        AGE = IAGE                                                        BEF00580
        IA2=ICY-MY+1                                                      BEF00590
        IA3=21-IA2                                                        BEF00600
C                                                                         BEF00610
      IF(MY.LT.66) INDX=1                                                 BEF00620
      IF(MY.GE.66) INDX=INDX3R(MY-65,IP,IMODE,IREJN)                      BEF00630
C                                                                         BEF00640
      VMTAGE = CUMMIL(IAGE+1,IMODE)*.0001                                 BEF00650
C                                                                         BEF00660
      REF(IA3,ICYP,IP,IMODE) =                                            BEF00670
     *             BASE3R(INDX,IP,IMODE,IREJN) +                        BEF00680
     *                VMTAGE*DEL3R(INDX,IP,IMODE,IREJN)                 BEF00690
C                                                                         BEF00700
      IDLREF(IA3,ICYP,IP,IMODE) =                                         BEF00710
     *             IDLB3R(INDX,IP,IMODE,IREJN) +                        BEF00720
     *                VMTAGE*IDEL3R(INDX,IP,IMODE,IREJN)                BEF00730
C                                                                         BEF00740
100   CONTINUE                                                            BEF00750
      DO 450 I=1,20                                                       BEF00760
      DO 450 J=1,26                                                       BEF00770
      DO 450 IM=1,6                                                       BEF00780
      IF(NMMFLG.EQ.1) REF(I,J,1,IM)=REF(I,J,1,IM)*NOAMTH(I+J-1,IM)        BEF00790
  450 CONTINUE                                                            BEF00800
```

```
C                                                                       BEF00810
C*****************************************************                  BEF00820
C                                                                       BEF00830
C     WRITE(6,444) CUMMIL                                               BEF00840
444   FORMAT(1X,10F8.0)                                                 BEF00850
C                                                                       BEF00860
C     DEBUG SUBCHK                                                      BEF00870
C                                                                       BEF00880
      RETURN                                                            BEF00890
      END                                                               BEF00900
```

```
      SUBROUTINE GETCUM(CUMMIL)                                          GET00010
                                                                         GET00020
C     COMMON/MYMCOM/MYMDUM,MYR,TF                                        GET00030
                                                                         GET00040
C     REAL CUMMIL(20,6),MYM(20,6),MYMDUM(20,6),MYR(20,6),TF(20,6)        GET00050
      REAL FRAC(4,6)                                                     GET00060
      DATA FRAC/                                                         GET00070
     *          .75 , .375 , .25 , .875 ,                               GET00080
     *          .75 , .375 , .25 , .875 ,                               GET00090
     *          .75 , .375 , .25 , .875 ,                               GET00100
     *          .50 , .25  , .50 , .75  ,                               GET00110
     *          .50 , .25  , .50 , .75  ,                               GET00120
     *          .50 , .25  , .50 , .75    /                             GET00130
                                                                         GET00140
C     DO 10 I1=1,6                                                       GET00150
      DO 10 I2=1,20                                                      GET00160
10    MYM(I2,I1) = MYMDUM(I2,I1)*100000.                                 GET00170
C                                                                        GET00180
      DO 100 IM=1,6                                                      GET00190
         CUMMIL(1,IM)=MYM(1,IM)*FRAC(2,IM)                               GET00200
      DO 90 I=2,20                                                       GET00210
         SUM=0.                                                          GET00220
         SUM2=0.                                                         GET00230
         II=I-1                                                          GET00240
      DO 80 J=1,II                                                       GET00250
80    SUM=SUM+MYM(J,IM)                                                  GET00260
         III=II-1                                                        GET00270
         IF(III.EQ.0) GO TO 74                                           GET00280
      DO 70 L=1,III                                                      GET00290
70    SUM2=SUM2+MYM(L,IM)                                                GET00300
C                                                                        GET00310
74    CONTINUE                                                           GET00320
         T1=SUM+MYM(I,IM)*FRAC(2,IM)                                     GET00330
         T2=SUM2+MYM(II,IM)*FRAC(4,IM)                                   GET00340
         T1=T1*FRAC(1,IM)                                                GET00350
         T2=T2*FRAC(3,IM)                                                GET00360
         TSUM=T1+T2                                                      GET00370
      CUMMIL(I,IM)=TSUM                                                  GET00380
90    CONTINUE                                                           GET00390
100   C                                                                  GET00400
```

```
C       WRITE(6,444) CUMMIL                                    GET00410
444     FORMAT(1X,10F8.0)                                      GET00420
C                                                              GET00430
        RETURN                                                 GET00440
C                                                              GET00450
C       DEBUG SUBCHK                                           GET00460
        END                                                    GET00470
```

```
      SUBROUTINE EFALTY( NMYALT , ALTKOD )                                  EFA00010
C                                                                           EFA00020
      COMMON/BEFCOM/BEF                                                     EFA00030
C                                                                           EFA00040
      INTEGER ALTKOD(4,20),NMYALT,CYI,P,ISTD1(3),MYI,ICY                    EFA00050
C                                                                           EFA00060
      REAL BEF(20,26,3,6),EFREP(20,4,3)                                     EFA00070
C                                                                           EFA00080
      DATA EFREP/1.0,1.2,1.4,1.6,1.8,2.0,2.2,2.4,2.6,2.8,3.0,3.0,3.0,       EFA00090
     *  0.6,0.7,0.8,1.0,1.1,1.2,1.3,1.4,1.6,1.7, 3*1.8,                     EFA00100
     *  0.27,0.32,0.38,0.43,0.49,0.54,0.59,0.65,0.70,0.76,3*0.81,13*0.,     EFA00110
     *  23.7,26.8,30.0,33.1,36.2,39.4,42.5,45.7,48.8,4*51.9,                EFA00120
     *  6.98,10.12,13.26,16.40,19.54,22.68,25.82,28.96,32.10,4*35.24,       EFA00130
     *  2.2,4.16,6.12,8.08,10.04,12.,13.96,15.92,17.88,4*19.84,             EFA00140
     *  13*0.0,                                                             EFA00150
     *  2.00,2.06,2.12,2.18,2.24,2.30,2.36,2.42,2.48,2.54,3*2.60,           EFA00160
     *  1.50,1.56,1.62,1.68,1.74,1.80,1.86,1.92,1.98,2.04,3*2.10,           EFA00170
     *  1.00,1.04,1.08,1.12,1.16,1.20,1.24,1.28,1.32,1.36,3*1.40,           EFA00180
     *  0.24,0.29,0.34,0.40,0.56,0.73,0.90,1.1,1.3,1.5,3*1.7,84*0. /        EFA00190
C                                                                           EFA00200
      DO 200 I = 1,NMYALT                                                   EFA00210
C                                                                           EFA00220
        MYI1     = ALTKOD(1,I) - 69                                         EFA00230
        ISTD1(1) = ALTKOD(2,I)                                              EFA00240
        ISTD1(2) = ALTKOD(3,I)                                              EFA00250
        ISTD1(3) = ALTKOD(4,I)                                              EFA00260
C                                                                           EFA00270
         DO 110 P = 1,3                                                     EFA00280
            ICODE1 = ISTD1(P)                                               EFA00290
            IF(ICODE1.EQ.0) GO TO 110                                       EFA00300
          DO 100 K = 1,20                                                   EFA00310
            IREV = 21-K                                                     EFA00320
            IM1 = K-1                                                       EFA00330
            ICY = MYI1 + IM1                                                EFA00340
            IF(ICY.GT.26) GO TO 100                                         EFA00350
            BEF(IREV,ICY,P,1) = EFREP(K,ICODE1,P)                           EFA00360
100       CONTINUE                                                          EFA00370
C                                                                           EFA00380
110     CONTINUE                                                            EFA00390
C                                                                           EFA00400
```

```
200   CONTINUE                                                  EFA00410
C                                                               EFA00420
      RETURN                                                    EFA00430
C                                                               EFA00440
C     DEBUG SUBCHK                                              EFA00450
C                                                               EFA00460
      END                                                       EFA00470
```

```
      SUBROUTINE CCEVAX                                                      CCE00010
C                                                                            CCE00020
      COMMON/CEVCOM/CCEVRT                                                   CCE00030
      COMMON/REGCOM/IREJN                                                    CCE00040
C                                                                            CCE00050
      INTEGER CY , MY                                                        CCE00060
      REAL CCEV(45,6,3),CCEVRT(45,6),LDGSWD(45),CCCAL(45,4,3)                CCE00070
C     DATA LDGSWD/17*.80,.77,.77,3*.74,2*.72,21*.55/                         CCE00080
C                                                                            CCE00090
      DATA CCEV/12*6.63,5*3.33,3*2.53,7*1.76,2*0.60,16*0.15,                 CCE00100
     *          12*6.63,5*3.33,3*2.53,7*1.76,2*0.60,16*0.15,                 CCE00110
     *          17*7.70,11*2.53,1*0.60,16*0.15,                              CCE00120
     *          17*7.70,13*2.00,15*0.30,                                     CCE00130
     *          45*0.,                                                       CCE00140
     *          27*1.60,18*0.,                                               CCE00150
     *                                                                       CCE00160
     *          10*6.63,3*3.33,7*2.53,7*1.76,2*0.60,16*0.15,                 CCE00170
     *          10*6.63,3*3.33,7*2.53,7*1.76,2*0.60,16*0.15,                 CCE00180
     *          17*7.70,10*2.53,2*0.60,16*0.15,                              CCE00190
     *          17*7.70,7*2.00,2*1.19,7*0.87,16*0.30,                        CCE00200
     *          45*0.,                                                       CCE00210
     *          27*1.60,18*0.,                                               CCE00220
     *                                                                       CCE00230
     *          12*9.00,5*4.52,3*3.44,6*2.39,1*1.76,2*0.81,4*.2,12*.15,      CCE00240
     *          12*9.00,5*4.52,3*3.44,6*2.39,1*1.76,2*0.81,4*.2,12*.15,      CCE00250
     *          17*10.46,9*2.72,2.00,2.72,0.81,4*0.20,12*0.15,               CCE00260
     *          17*10.46,16*2.72,12*0.30,                                    CCE00270
     *          45*0.,                                                       CCE00280
     *          27*2.17,18*0.        /                                       CCE00290
C                                                                            CCE00300
C                                                                            CCE00310
      DO 100 IMODE = 1,6                                                     CCE00320
      DO 90 MY = 1,45                                                        CCE00330
C                                                                            CCE00340
      CCEVRT(MY,IMODE) = CCEV(MY,IMODE,IREJN)                                CCE00350
C                                                                            CCE00360
90    CONTINUE                                                               CCE00370
100   CONTINUE                                                               CCE00380
C                                                                            CCE00390
C                                                                            CCE00400
```

```
      RETURN                                                    CCE00410
C     DEBUG SUBCHK                                              CCE00420
      END                                                       CCE00430
```

```
      SUBROUTINE LDVIMX                                                  LDV00010
C                                                                        LDV00020
      COMMON/DEFCOM/REF(20,26,3,6)                                       LDV00030
      COMMON/IMCOM/ICYIM,ISTRN,IMTFLG,MODYR1,MODYR2                      LDV00040
      COMMON/IMCRED/PCIM                                                 LDV00050
C                                                                        LDV00060
      INTEGER CY,CYP,CYIMP,CYIP1,DELY,DEL2,DEL                           LDV00070
      INTEGER PCIM(19,5,4,2,2)                                           LDV00080
C** IN PCIM: DEL,ISTRIN,ITECH,IPROGM,IPOL                                LDV00090
C                                                                        LDV00100
C*************************************************************************LDV00110
C                                                                        LDV00120
      IPROGM = 1 + IMTFLG                                                LDV00130
C     ISTRIN = .1*ISTRN                                                  LDV00140
      IF(ISTRN.LT.10.OR.ISTRN.GT.50) STOP                                LDV00150
      IREM = ISTRN - (ISTRN/10)*10                                       LDV00160
      REM=IREM*.1                                                        LDV00170
C     ISTRIN = ISTRN*.1                                                  LDV00180
      STRN = (ISTRN + 0.5)*0.1                                           LDV00190
      ISTRIN = STRN                                                      LDV00200
      CYIMP = ICYIM                                                      LDV00210
      CYIP1 = ICYIM + 1                                                  LDV00220
C                                                                        LDV00230
      DO 100 IPOL=1,2                                                    LDV00240
      DO 100 CY = CYIP1,95                                               LDV00250
C                                                                        LDV00260
           CYP = CY-69                                                   LDV00270
           DELY = CY - CYIMP                                             LDV00280
C                                                                        LDV00290
      DO 90 I = 1,20                                                     LDV00300
         MY = CY - (20-I)                                                LDV00310
         MYP = MY - 50                                                   LDV00320
         DEL2 = MY - CYIMP                                               LDV00330
C                                                                        LDV00340
      IF(MY.LT.MODYR1.OR.MY.GT.MODYR2) GO TO 90                          LDV00350
C                                                                        LDV00360
      IF(MY.LE.CYIMP) DEL = DELY                                         LDV00370
      IF(MY.GT.CYIMP) DEL = DELY - DEL2                                  LDV00380
      IF(DEL.GT.19) DEL = 19                                             LDV00390
C                                                                        LDV00400
```

```
C*TEST FOR TECH. I, II, III, OR IV                                      LDV00410
      IF(MY.LT.75) ITECH = 1                                            LDV00420
      IF(MY.GE.75.AND.MY.LE.79) ITECH = 2                               LDV00430
      IF(MY.EQ.80) ITECH = 3                                            LDV00440
      IF(MY.GE.81) ITECH = 4                                            LDV00450
C                                                                       LDV00460
      IF(DEL.EQ.0) PCRED = 0.0                                          LDV00470
      IF(DEL.GT.0.AND.ISTRIN.LT.5)                                      LDV00480
     * PCRED = PCIM(DEL,ISTRIN,ITECH,IPROGM,IPOL)*.01                   LDV00490
     *   + REM*(PCIM(DEL,ISTRIN+1,ITECH,IPROGM,IPOL) -                  LDV00500
     *          PCIM(DEL,ISTRIN,ITECH,IPROGM,IPOL) )*.01                LDV00510
C                                                                       LDV00520
      IF(DEL.GT.0.AND.ISTRIN.EQ.5)                                      LDV00530
     * PCRED = PCIM(DEL,ISTRIN,ITECH,IPROGM,IPOL)*.01                   LDV00540
C                                                                       LDV00550
C*PERHAPS SKIP FOR LDT?                                                 LDV00560
      PCLEFT = 1. - PCRED                                               LDV00570
C                                                                       LDV00580
      BEF(I,CYP,IPOL,1) = BEF(I,CYP,IPOL,1)*PCLEFT                      LDV00590
C                                                                       LDV00600
90    CONTINUE                                                          LDV00610
100   CONTINUE                                                          LDV00620
C                                                                       LDV00630
      RETURN                                                            LDV00640
C                                                                       LDV00650
C     DEBUG SUBCHK                                                      LDV00660
C                                                                       LDV00670
      END                                                               LDV00680
```

```
      SUBROUTINE ALUH(CY,AC,XLOAD,TRAILR,PCCO,PCCC,ABSHUM)                  ALU00010
                                                                            ALU00020
C                                                                           ALU00030
      COMMON/RET1/ALHRET(20,4,3)                                            ALU00040
C                                                                           ALU00050
      INTEGER CY                                                            ALU00060
      REAL COMPEF(20,3,6)                                                   ALU00070
      REAL XLOAD(3)                                                         ALU00080
      REAL PCW(20),CFNIX(20,3,6),COMCCC(6),CFLET(20,3,6),TF(20,6)           ALU00090
      REAL A(20,3,3),U(20,3,3),L(3,3),H(3)                                  ALU00100
      REAL TCFA(3),TCFB(3),TCFC(3)                                          ALU00110
      REAL CFLD(3)                                                          ALU00120
      REAL ACCF(3),PCWAC(45)                                                ALU00130
C                                                                           ALU00140
      DATA ACCF/1.13,1.18,1.18/                                             ALU00150
      DATA CFLD/1.06,1.20,1.03/                                             ALU00160
      DATA PCWAC/15*.54,3*.66,4*.75,2*.81,21*.81/                           ALU00170
      DATA TCFA/1.32,2.15,1.16/,TCFB/.75,1.55,1.28/,TCFC/.43,.39,.92/       ALU00180
C   IN TCFA ABOVE, 2ND VALUE SHOULD BE 2.15..IT IS 1.15 FOR ORE. CF.        ALU00190
C                                                                           ALU00200
      PCCOLD=PCCC*.01                                                       ALU00210
C                                                                           ALU00220
      DO 207 IP=1,3                                                         ALU00230
      H(IP)=1.                                                              ALU00240
      DO 207 IM=1,3                                                         ALU00250
      L(IP,IM)=1.                                                           ALU00260
      DO 207 IT=1,20                                                        ALU00270
      A(IT,IP,IM)=1.                                                        ALU00280
      U(IT,IP,IM)=1.                                                        ALU00290
      ALHRET(IT,4,IP) = 1.                                                  ALU00300
207   CONTINUE                                                              ALU00310
C                                                                           ALU00320
      DO 500 IP = 1,3                                                       ALU00330
C                                                                           ALU00340
      DO 400 IMODE=1,3                                                      ALU00350
C                                                                           ALU00360
      IF(IMODE.EQ.3) GO TO 15                                               ALU00370
C*****A:  AIR CONDITIONING CORRECTION FACTOR                                 ALU00380
      DO 90 I=1,20                                                          ALU00390
      IMY = CY - (20-I) - 50                                                ALU00400
      PCW(I)=PCWAC(IMY)
```

```
      A(I,IMODE,IP) = AC*PCWAC(IMY)*(ACCF(IP)-1.) + 1.0                 ALU00410
90    CONTINUE                                                          ALU00420
C                                                                       ALU00430
      IF(IMODE.EQ.2) GO TO 15                                           ALU00440
C***  U:  TRAILER TOWING CORRECTION FACTOR                              ALU00450
      DO 91 I=1,20                                                      ALU00460
      IMY=CY-(20-I)-50                                                  ALU00470
      IF(IMY.GT.24) GO TO 77                                            ALU00480
      CFA=TCFA(IP)                                                      ALU00490
      GO TO 78                                                          ALU00500
77    CONTINUE                                                          ALU00510
      CFA=(PCCOLD*TCFA(IP) + (1.-PCCOLD)*TCFB(IP))/                     ALU00520
     *          (PCCOLD + (1.-PCCOLD)*TCFC(IP))                        ALU00530
78    CONTINUE                                                          ALU00540
C                                                                       ALU00550
      U(I,IMODE,IP) = TRAILR*(CFA-1.) + 1.0                             ALU00560
C                                                                       ALU00570
91    CONTINUE                                                          ALU00580
C                                                                       ALU00590
C                                                                       ALU00600
15    CONTINUE                                                          ALU00610
C***  L:  ADDITIONAL LOADING CORRECTION FACTOR                          ALU00620
      L(IMODE,IP) = XLOAD(IMODE)*(CFLD(IF)-1.) + 1.                     ALU00630
C                                                                       ALU00640
400   CONTINUE                                                          ALU00650
500   CONTINUE                                                          ALU00660
C***  H:  HUMIDITY CORRECTION FACTOR                                    ALU00670
      DO 675 IMODE=1,3                                                  ALU00680
      H(IMODE) = 1. - .0047*(ABSHUM - 75.)                              ALU00690
675   CONTINUE                                                          ALU00700
C                                                                       ALU00710
C                                                                       ALU00720
      DO 800 IP=1,3                                                     ALU00730
      DO 800 IMODE=1,3                                                  ALU00740
      DO 800 IY=1,20                                                    ALU00750
      ALHTMP = A(IY,IMODE,IP)*U(IY,IMODE,IP)*L(IMODE,IP)                ALU00760
      IF(IP.EQ.3) ALHTMP = ALHTMP*H(IMODE)                              ALU00770
      ALHRET(IY,IMODE,IP) = ALHTMP                                      ALU00780
800   CONTINUE                                                          ALU00790
C                                                                       ALU00800
```

```
      RETURN
C     DEBUG SUBCHK
      END
```

ALU00810
ALU00820
ALU00830

```
      SUBROUTINE TRKOPC(CY,HGWGT,HDWGT,HGCID,HDCID)                          TRK00010
C                                                                            TRK00020
      COMMON/RET2/TRKRET(20,3,2)                                             TRK00030
      INTEGER CY,INDXAR(45)                                                  TRK00040
C** IN B0,B1,AND B2, 1ST INDEX IS YEAR GROUP, 2ND IS VEHTYPE,3RD IS POL      TRK00050
      REAL B0(3,2,3),B1(3,2,3),B2(3,2,3)                                     TRK00060
C                                                                            TRK00070
      DATA B0/1.302,-.584,.762,2.058,2.058,.893,                             TRK00080
     *        .814,.354,.320,-.533,-.533,-.209,                              TRK00090
     *        .869,.883,.943,.085,.085,.139     /                            TRK00100
C                                                                            TRK00110
      DATA B1/.177,.124,.131,-.005,-.005,.015,                               TRK00120
     *        -.036,.106,.149,-.03,-.03,.07,                                 TRK00130
     *        .172,.016,.008,.02,.02,.023       /                            TRK00140
C                                                                            TRK00150
      DATA B2/-.065,-.01,-.047,-.014,-.014,-.006,                            TRK00160
     *        .016,-.024,-.045,.047,.043,.003,                               TRK00170
     *        -.054,-.003,-.017,.002,.002,.001  /                            TRK00180
C                                                                            TRK00190
      DATA INDXAR/19*1,4*2,22*3/                                             TRK00200
C                                                                            TRK00210
      DO 100 IMY=1,20                                                        TRK00220
C                                                                            TRK00230
         MY = CY - (20-IMY) - 50                                             TRK00240
         IX=INDXAR(MY)                                                       TRK00250
C                                                                            TRK00260
      DO 100 IPOL = 1,3                                                      TRK00270
C                                                                            TRK00280
      TRKRET(IMY,IPOL,1) = B0(IX,1,IPOL) + B1(IX,1,IPOL)*HGWGT*.001 +        TRK00290
     *                     B2(IX,1,IPOL)*HGWGT/HGCID                       TRK00300
C                                                                            TRK00310
      TRKRET(IMY,IPOL,2) = B0(IX,2,IPOL) + B1(IX,2,IPOL)*HDWGT*.001 +        TRK00320
     *                     B2(IX,2,IPOL)*HDWGT/HDCID                       TRK00330
C                                                                            TRK00340
100   CONTINUE                                                               TRK00350
C                                                                            TRK00360
      RETURN                                                                 TRK00370
C     DEBUG SUBCHK                                                           TRK00380
      END                                                                    TRK00390
```

```
      BLOCK DATA                                                        BL100010
                                                                        BL100020
C                                                                       BL100030
      COMMON/ACOM/AIN1,AIN2,AIN3                                        BL100040
C                                                                       BL100050
      REAL AIN1(5,18),AIN2(6,18),AIN3(6,18)                             BL100060
C                                                                       BL100070
C**HC SPEED CORRECTION FACTOR COEFFICIENTS                              BL100080
      DATA AIN1/                                                        BL100090
     *2.2461,-.29097,0.015889,-.47249E-03,0.69408E-05,-.39280E-07,      BL100100
     *2.3103,-.28957,0.015299,-.44669E-03,0.64818E-05,-.36346E-07,      BL100110
     *2.1656,-.26999,0.014420,-.43764E-03,0.65074E-05,-.37810E-07,      BL100120
     *2.3973,-.29998,0.016135,-.48749E-03,0.72909E-05,-.41977E-07,      BL100130
     *2.4087,-.30819,0.016817,-.50684E-03,0.75785E-05,-.43160E-07,      BL100140
     *2.2322,-.28499,0.015383,-.45674E-03,0.67349E-05,-.38380E-07,      BL100150
     *2.2522,-.28778,0.015682,-.47317E-03,0.70795E-05,-.40846E-07,      BL100160
     *2.0278,-.27305,0.015360,-.46030E-03,0.67853E-05,-.38488E-07,      BL100170
     *2.1506,-.28362,0.015380,-.44214E-03,0.62873E-05,-.34631E-07,      BL100180
     *2.2302,-.29365,0.016240,-.48415E-03,0.71159E-05,-.40286E-07,      BL100190
     *2.1223,-.29107,0.016910,-.52615E-03,0.80271E-05,-.47012E-07,      BL100200
     *2.1536,-.28345,0.015700,-.46976E-03,0.69787E-05,-.39471E-07,      BL100210
     *2.0735,-.28975,0.017300,-.55471E-03,0.86420E-05,-.51311E-07,      BL100220
     *2.3495,-.30496,0.016842,-.50960E-03,0.75952E-05,-.43496E-07,      BL100230
     *2.1134,-.28568,0.016320,-.50079E-03,0.75507E-05,-.43719E-07,      BL100240
     *2.1194,-.29863,0.018450,-.61654E-03,0.99206E-05,-.60402E-07,      BL100250
     *2.6838,-.34463,0.019542,-.62772E-03,0.97844E-05,-.58337E-07,      BL100260
     *2.3954,-.33578,0.021161,-.73155E-03,0.12072E-04,-.74857E-07/      BL100270
C                                                                       BL100280
C**CO SPEED CORRECTION FACTOR COEFFICIENTS                              BL100290
      DATA AIN2/                                                        BL100300
     *  1.8198,-.25466,.015235,-.49740E-03,.75821E-05,-.44951E-07,      BL100310
     *  2.3399,-.29698,.016007,-.47740E-03,.70675E-05,-.40398E-07,      BL100320
     *  2.4415,-.29147,.014296,-.38795E-03,.52978E-05,-.28244E-07,      BL100330
     *  2.4655,-.30502,.016050,-.47397E-03,.69908E-05,-.39976E-07,      BL100340
     *  2.7780,-.31913,.015318,-.42233E-03,.58495E-05,-.31497E-07,      BL100350
     *  2.7890,-.32711,.016294,-.46757E-03,.67191E-05,-.37440E-07,      BL100360
     *  2.7074,-.32131,.017618,-.53858E-03,.81740E-05,-.47780E-07,      BL100370
     *  1.8692,-.27668,.017233,-.55828E-03,.87168E-05,-.51698E-07,      BL100380
     *  1.8213,-.27205,.017030,-.55202E-03,.86254E-05,-.51144E-07,      BL100390
     *  2.0142,-.29519,.018635,-.62161E-03,.99366E-05,-.59978E-07,      BL100400
     *  2.0453,-.31062,.020485,-.70853E-03,.11621E-04,-.71569E-07,
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     *   2.3187,-.34115,.020945,-.66589E-03,.10227E-04,-.59827E-07,     BL100410
     *   2.5752,-.32889,.018975,-.62826E-03,.10092E-04,-.61273E-07,     BL100420
     *   2.6845,-.33282,.017628,-.52412E-03,.77222E-05,-.43702E-07,     BL100430
     *   2.1549,-.32912,.021011,-.68906E-03,.10839E-04,-.64712E-07,     BL100440
     *   2.5456,-.36285,.023277,-.81504E-03,.13623E-04,-.85591E-07,     BL100450
     *   2.8393,-.36876,.021078,-.67644E-03,.10627E-04,-.63641E-07,     BL100460
     *   2.4875,-.39156,.027072,-.97618E-03,.16527E-04,-1.0432E-07/     BL100470
C                                                                       BL100480
C                                                                       BL100490
C** NOX SPEED CORRECTION FACTOR COEFFICIENTS                            BL100500
      DATA AIN3/                                                        BL100510
     *   2.4442,-.250110,1.3829E-02,-.28703E-03,.20758E-05,0.0,         BL100520
     *   1.6863,-.118300,.65497E-02,-.13714E-03,.10085E-05,0.0,         BL100530
     *   1.1265,-.039340,.26864E-02,-.60802E-04,.47729E-06,0.0,         BL100540
     *   1.2268,-.044498,.26248E-02,-.56715E-04,.43429E-06,0.0,         BL100550
     *   1.0174,-.011896,.91437E-03,-.21574E-04,.18230E-06,0.0,         BL100560
     *   .98760,-.019567,.16964E-02,-.40400E-04,.32800E-06,0.0,         BL100570
     *   1.1592,-.044454,.29643E-02,-.66859E-04,.52236E-06,0.0,         BL100580
     *   1.8866,-.161290,.90459E-02,-.18561E-03,.13256E-05,0.0,         BL100590
     *   1.5578,-.113030,.67183E-02,-.14341E-03,.10600E-05,0.0,         BL100600
     *   2.0452,-.124010,.11074E-01,-.23175E-03,.16837E-05,0.0,         BL100610
     *   1.6326,-.121860,.70302E-02,-.14629E-03,.10614E-05,0.0,         BL100620
     *   1.4482,-.122440,.79502E-02,-.17108E-03,.12578E-05,0.0,         BL100630
     *   .24597,.084195,-.34084E-02,.62988E-04,-.41397E-06,0.0,         BL100640
     *   1.2817,-.090487,.53574E-02,-.11889E-03,.90106E-06,0.0,         BL100650
     *   1.5345,-.125670,.78592E-02,-.16943E-03,.12549E-05,0.0,         BL100660
     *   .70481,.038153,-.17391E-02,.32614E-04,-.20385E-06,0.0,         BL100670
     *   .78884,.32855E-03,.10603E-02,-.31975E-04,.29039E-06,0.0,       BL100680
     *   .94213,-.042324,.38625E-02,-.93985E-04,.75388E-06,0.0  /       BL100690
C                                                                       BL100700
      END
```

```
      BLOCK DATA                                                        BL200010
C                                                                       BL200020
      COMMON/MYMCOM/MYM,MYR,TF                                          BL200030
      COMMON/LNKCOM/SPD,TEMP,PCCO,PCHS,PCCC,MS                          BL200040
C                                                                       BL200050
      REAL SPD(3),MS(6),MYM(20,6),MYR(20,6),TF(20,6)                    BL200060
C                                                                       BL200070
C**DEFAULT MODAL SPLIT                                                  BL200080
      DATA MS/.803,.058,.058,.045,.031,.005/                            BL200090
C                                                                       BL200100
C**ANNUAL AVERAGE MILEAGE ACCUMULATION (DIVIDED BY 100000)              BL200110
      DATA MYM/                                                         BL200120
     *0.159,0.150,0.140,0.131,0.122,0.113,0.103,0.094,0.085,0.076,      BL200130
     *0.067,0.066,0.062,0.059,0.055,0.051,0.050,0.047,0.044,0.044,      BL200140
     *0.159,0.150,0.140,0.131,0.122,0.113,0.103,0.094,0.085,0.076,      BL200150
     *0.067,0.066,0.062,0.059,0.055,0.051,0.050,0.047,0.044,0.044,      BL200160
     *0.159,0.150,0.140,0.131,0.122,0.113,0.103,0.094,0.086,0.080,0.075,BL200170
     *0.157,0.157,0.141,0.126,0.113,0.102,0.094,0.086,0.080,0.075,      BL200180
     *0.071,0.066,0.062,0.060,0.055,0.052,0.050,0.047,0.044,0.041,      BL200190
     *0.190,0.190,0.179,0.165,0.150,0.135,0.120,0.106,0.095,0.086,      BL200200
     *0.078,0.070,0.063,0.059,0.053,0.049,0.047,0.046,0.044,0.042,      BL200210
     *0.736,0.736,0.699,0.637,0.566,0.500,0.456,0.412,0.382,0.360,      BL200220
     *0.346,0.338,0.331,0.324,0.309,0.287,0.257,0.217,0.184,0.154,      BL200230
     *.0201,.0251,.0207,.0185,.0172,.0162,.0155,.0140,.0143,.0139,      BL200240
     *.0135,.0132,.0129,.0127,.0125,.0123,.0122,.0121,.0120,.0119/      BL200250
C                                                                       BL200260
C**VEHICLE REGISTRATION DISTRIPUTIONS                                   BL200270
      DATA MYR/                                                         BL200280
     *0.075,0.107,0.107,0.106,0.100,0.092,0.085,0.077,0.066,0.052,      BL200290
     *0.039,0.027,0.018,0.014,0.009,0.006,0.005,0.005,0.005,0.004,      BL200300
     *0.061,0.095,0.094,0.107,0.083,0.076,0.076,0.063,0.054,0.043,      BL200310
     *0.036,0.024,0.030,0.028,0.026,0.024,0.022,0.020,0.018,0.016,      BL200320
     *0.037,0.070,0.078,0.086,0.075,0.075,0.075,0.068,0.059,0.053,      BL200330
     *0.044,0.032,0.038,0.036,0.034,0.032,0.030,0.029,0.026,0.024,      BL200340
     *0.037,0.070,0.078,0.086,0.075,0.075,0.075,0.068,0.059,0.053,      BL200350
     *0.044,0.032,0.038,0.036,0.034,0.032,0.030,0.029,0.026,0.024,      BL200360
     *0.077,0.135,0.134,0.131,0.099,0.090,0.082,0.062,0.045,0.033,      BL200370
     *0.025,0.015,0.013,0.011,0.010,0.008,0.007,0.006,0.005,0.004,      BL200380
     *0.105,0.225,0.206,0.149,0.097,0.062,0.046,0.033,0.029,0.023,      BL200390
     *0.008,0.005,0.013,0.0  ,0.0  ,0.0  ,0.0  ,0.0  ,0.0  ,0.0  /      BL200400
C
```

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      END                                                              BL200410
```

```
      BLOCK DATA                                                        BL300010
                                                                        BL300020
C                                                                       BL300030
      COMMON/INDXCM/INDX49,INDXCA,INDXHI                                BL300040
      COMMON/BASECM/BASE49,BASECA,BASEHI                                BL300050
      COMMON/DELCOM/ DEL49, DELCA, DELHI                                BL300060
C                                                                       BL300070
      INTEGER INDX49(30,3,6),INDXCA(30,3,6),INDXHI(30,3,6)              BL300080
      REAL BASE49(10,3,6),BASECA(10,3,6),BASEHI(10,3,6)                 BL300090
      REAL DEL49 (10,3,6),DELCA (10,3,6),DELHI (10,3,6)                 BL300100
C                                                                       BL300110
C     6 6 6 6 7 7 7 7 7 7 7 7 7 7 8 8 8 8 8 8 8 8 9 9 9 9 9 9           BL300120
C     6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5       BL300130
      DATA INDX49/                                                      BL300140
     *1,1,2,2,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,     BL300150
     *1,1,2,2,2,2,2,2,2,3,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,     BL300160
     *1,1,2,2,2,2,2,2,3,3,3,4,4,5,5,5,5,6,6,6,6,6,6,6,6,6,6,6,6,6,     BL300170
     *1,1,2,2,2,2,2,2,2,2,3,3,3,3,4,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,     BL300180
     *1,1,2,2,2,2,2,2,2,2,3,3,3,3,4,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,     BL300190
     *1,1,2,2,2,2,2,2,3,3,4,4,4,4,5,5,5,5,5,6,6,6,6,6,6,6,6,6,6,6,     BL300200
     *1,1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,     BL300210
     *1,1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,     BL300220
     *1,1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,     BL300230
     *1,1,1,1,2,2,2,2,2,3,3,3,3,3,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,5,     BL300240
     *1,1,1,1,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,     BL300250
     *1,1,1,1,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,     BL300260
     *1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,     BL300270
     *1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,     BL300280
     *1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,     BL300290
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,     BL300300
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,     BL300310
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4 /    BL300320
C                                                                       BL300330
C     6 6 6 6 7 7 7 7 7 7 7 7 7 7 8 8 8 8 8 8 8 8 9 9 9 9 9 9           BL300340
C     6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5       BL300350
      DATA INDXCA/                                                      BL300360
     *2,2,2,2,2,2,2,2,2,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,     BL300370
     *2,2,2,2,2,2,2,2,2,3,3,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,     BL300380
     *2,2,2,2,2,2,2,2,3,3,4,4,5,5,5,6,7,7,7,7,7,7,7,7,7,7,7,7,7,7,     BL300390
     *1,1,2,2,2,2,2,2,2,2,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,     BL300400
     *1,1,2,2,2,2,2,2,2,2,3,3,3,4,5,5,6,6,6,6,6,6,6,6,6,6,6,6,6,6,
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     *1,1,2,2,2,2,2,3,3,4,4,4,4,5,5,6,6,7,7,7,7,7,7,7,7,7,7,7,7,7,  BL300410
     *1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300420
     *1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300430
     *1,1,1,2,2,2,2,2,2,2,2,2,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300440
     *1,1,1,2,2,2,2,2,3,3,4,4,5,5,5,6,6,6,7,7,7,7,7,7,7,7,7,7,7,7,  BL300450
     *1,1,1,2,2,2,2,3,3,4,4,5,5,5,5,5,5,6,6,6,6,6,6,6,6,6,6,6,6,6,  BL300460
     *1,1,1,2,2,2,2,3,3,4,4,5,5,5,6,6,6,6,6,7,7,7,7,7,7,7,7,7,7,7,  BL300470
     *1,1,1,1,1,1,1,2,2,2,2,3,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300480
     *1,1,1,1,1,1,1,2,2,2,2,3,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300490
     *1,1,1,1,1,1,1,2,2,2,2,3,3,3,4,4,4,4,4,5,5,5,5,5,5,5,5,5,5,5,  BL300500
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,4,5,5,5,5,5,5,5,5,5,5,5,5,5,  BL300510
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4,4,  BL300520
     *1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,4 /  BL300530
C                                                                    BL300540
C      6 6 6 6 7 7 7 7 7 7 7 7 7 7 8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9  BL300550
C      6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5  BL300560
      DATA INDXHI/                                                   BL300570
     *1,1,2,2,2,2,2,2,2,3,3,4,5,5,6,7,7,7,8,8,8,8,8,8,8,8,8,8,8,8,  BL300580
     *1,1,2,2,2,2,2,2,2,2,3,3,4,5,5,6,7,7,7,8,8,8,8,8,8,8,8,8,8,8,  BL300590
     *1,1,2,2,2,2,2,2,2,3,3,4,4,5,6,6,7,8,8,8,9,9,9,9,9,9,9,9,9,9,  BL300600
     *1,1,2,2,2,2,2,2,2,2,2,3,3,4,5,6,6,6,6,7,8,8,8,8,8,8,8,8,8,8,  BL300610
     *1,1,2,2,2,2,2,2,2,2,2,3,3,4,5,6,6,6,6,6,7,8,8,8,8,8,8,8,8,8,  BL300620
     *1,1,2,2,2,2,2,2,2,3,3,4,4,5,6,7,7,7,7,7,8,8,9,9,9,9,9,9,9,9,  BL300630
     *1,1,1,1,2,2,2,2,2,2,2,2,2,2,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,  BL300640
     *1,1,1,1,2,2,2,2,2,2,2,2,2,2,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,  BL300650
     *1,1,1,1,2,2,2,2,2,2,2,2,2,2,3,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,  BL300660
     *1,1,1,1,2,2,2,2,2,3,3,3,3,3,4,4,4,4,5,6,6,6,6,6,6,6,6,6,6,6,  BL300670
     *1,1,1,1,2,2,2,2,2,3,3,3,3,3,4,4,4,4,5,6,6,6,6,6,6,6,6,6,6,6,  BL300680
     *1,1,1,1,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,5,6,6,6,6,6,6,6,6,6,6,  BL300690
     *1,1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,  BL300700
     *1,1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,  BL300710
     *1,1,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,3,4,4,4,4,4,4,4,4,4,4,4,  BL300720
     *1,1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,  BL300730
     *1,1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5,  BL300740
     *1,1,1,1,1,1,1,1,1,1,1,1,1,2,2,3,3,3,4,5,5,5,5,5,5,5,5,5,5,5 /  BL300750
C                                                                    BL300760
C***EXHAUST EMISSION FACTOR INTERCEPT: 49 STATE                      BL300770
      DATA BASE49/                                                   BL300780
     *  4.45,  2.43,  1.13,  0.17,  0.13,  0.17, 0.0 , 0.0 , 0.0 , 0.0 ,BL300790
     * 68.30, 31.14, 18.60,  3.00,  1.40,  1.40, 0.0 , 0.0 , 0.0 , 0.0 ,BL300800
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     *  3.58,  4.43,  2.98,  2.42,  1.50,  0.29,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300810
     *  4.45,  2.43,  1.11,  0.54,  0.31,  0.31,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300820
     * 68.30, 31.14, 16.10, 14.50,  3.87,  3.87,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300830
     *  3.58,  4.43,  2.98,  2.45,  1.73,  0.41,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300840
     *  5.99,  2.90,  0.94,  0.31,  0.31,  0.31,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300850
     * 78.70, 32.40, 14.50,  3.87,  3.87,  3.87,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300860
     *  6.49,  5.04,  1.73,  0.41,  0.41,  0.41,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300870
     * 23.90, 18.54, 22.02,  5.22,  1.46,  1.46,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300880
     *272.90,212.70,218.80,191.90, 15.38, 15.38,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300890
     *  8.80, 12.80, 10.50,  9.10,  3.99,  3.99,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300900
     *  4.30,  4.50,  4.50,  2.85,  2.85,  2.85,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300910
     * 35.10, 27.00, 27.00, 27.00, 27.00, 27.00,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300920
     * 21.40, 20.10, 19.90,  5.35,  5.35,  5.35,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300930
     *  8.96,  4.70,  3.82,  0.29,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300940
     * 34.40, 20.27, 14.86,  2.71,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL300950
     *  0.14,  0.29,  0.56,  0.04,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 /BL300960
C                                                                             BL300970
C***EXHAUST EMISSION FACTOR INTERCEPT: CALIFORNIA                             BL300980
      DATA BASECA/                                                            BL300990
     *  4.45,  2.00,  0.29,  0.15,  0.15,  0.15,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301000
     * 68.30, 30.42,  3.80,  3.80,  3.00,  3.00,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301010
     *  3.58,  3.97,  3.12,  1.50,  1.10,  0.29,  0.21,  0.0 ,  0.0 ,  0.0 ,BL301020
     *  4.45,  2.43,  1.11,  0.29,  0.15,  0.15,  0.15,  0.0 ,  0.0 ,  0.0 ,BL301030
     * 68.30, 31.14, 16.10, 13.70,  3.80,  3.80,  3.80,  0.0 ,  0.0 ,  0.0 ,BL301040
     *  3.58,  4.43,  2.98,  1.50,  1.28,  0.54,  0.21,  0.0 ,  0.0 ,  0.0 ,BL301050
     *  5.99,  2.90,  0.29,  0.16,  0.16,  0.16,  0.16,  0.0 ,  0.0 ,  0.0 ,BL301060
     * 78.70, 32.40, 13.70,  3.80,  3.80,  3.80,  3.80,  0.0 ,  0.0 ,  0.0 ,BL301070
     *  6.49,  5.04,  1.73,  0.44,  0.44,  0.44,  0.44,  0.0 ,  0.0 ,  0.0 ,BL301080
     * 23.90, 18.54, 22.02, 18.16,  5.22,  3.50,  1.46,  0.0 ,  0.0 ,  0.0 ,BL301090
     *272.90,212.70,218.80,209.00,191.90, 15.38,15.38,  0.0 ,  0.0 ,  0.0 ,BL301100
     *  8.80, 12.80, 10.50,  7.50,  8.04,  6.20,  3.99,  0.0 ,  0.0 ,  0.0 ,BL301110
     *  4.30,  4.50,  4.50,  2.85,  2.85,  2.85,  2.85,  0.0 ,  0.0 ,  0.0 ,BL301120
     * 35.10, 27.00, 27.00, 27.00, 27.00, 27.00,27.00,  0.0 ,  0.0 ,  0.0 ,BL301130
     * 21.40, 20.10, 18.61, 16.30,  5.35,  5.35,  5.35,  0.0 ,  0.0 ,  0.0 ,BL301140
     *  8.96,  4.70,  3.82,  0.82,  0.29,  0.29,  0.29,  0.29,  0.29,  0.29,BL301150
     * 34.40, 20.27, 14.86,  2.71,  2.71,  2.71,  2.71,  2.71,  2.71,  2.71,BL301160
     *  0.14,  0.29,  0.56,  0.04,  0.04,  0.04,  0.04,  0.04,  0.04,  0.04/BL301170
C                                                                             BL301180
C***EXHAUST EMISSION FACTOR INTERCEPT: HIGH ALTITUDE                          BL301190
      DATA BASEHI/                                                            BL301200
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     *  6.03,  4.07,  1.83,  0.70,  1.83,  0.21,  0.21,  0.13,  0.17,  0.13,BL301210
     *110.04, 76.73, 38.31, 10.30, 38.31,  6.18,  2.88,  1.40,  1.40,  1.40,BL301220
     *  1.96,  3.00,  1.94,  1.50,  1.90,  1.50,  0.93,  0.18,  0.29,  0.29,BL301230
     *  6.03,  4.07,  1.79,  1.11,  1.79,  1.52,  0.47,  0.31,  0.0 ,  0.0 ,BL301240
     *110.04, 76.73, 33.15, 16.10, 33.15, 29.90,  8.00,  3.87,  0.0 ,  0.0 ,BL301250
     *  1.96,  3.00,  1.94,  1.52,  2.45,  1.52,  1.07,  1.73,  0.41,  0.0 ,BL301260
     *  8.12,  4.86,  1.52,  0.47,  0.31,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301270
     *127.30, 79.90, 29.90,  8.00,  3.87,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301280
     *  3.55,  3.41,  1.07,  1.73,  0.41,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301290
     * 32.40, 31.05, 36.77,  8.74,  2.35,  1.46,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301300
     *441.50,344.20,353.20,310.90, 31.70, 15.38,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301310
     *  4.82,  8.67,  6.94,  5.52,  5.64,  3.99,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301320
     *  5.80,  6.10,  6.10,  3.85,  2.85,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301330
     * 56.80, 43.70, 43.70, 43.70, 27.00,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301340
     * 11.80, 13.10, 12.90,  5.35,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL301350
     * 12.10,  7.97,  6.38,  0.45,  0.29,  0.29,  0.29,  0.29,  0.29,  0.29,BL301360
     * 47.10, 27.80, 20.40,  5.58,  2.71,  2.71,  2.71,  2.71,  2.71,  2.71,BL301370
     *  0.08,  0.19,  0.36,  0.03,  0.04,  0.04,  0.04,  0.04,  0.04,  0.0/BL301380
C                                                                          BL301390
C***EXHAUST EMISSION FACTOR SLOPE= 49 STATE                                BL301400
      DATA DEL49/                                                          BL301410
     * 0.58, 0.53, 0.23, 0.23, 0.23, 0.23, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301420
     * 3.06, 6.15, 2.80, 2.30, 2.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301430
     * 0.0 , 0.0 , 0.0 , 0.08, 0.16, 0.22, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301440
     * 0.58, 0.53, 0.41, 0.41, 0.23, 0.23, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301450
     * 3.06, 6.15, 5.34, 5.34, 2.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301460
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.11, 0.22, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301470
     * 0.58, 0.53, 0.41, 0.23, 0.23, 0.23, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301480
     * 3.06, 6.15, 5.34, 2.00, 2.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301490
     * 0.0 , 0.0 , 0.11, 0.22, 0.22, 0.22, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301500
     * 0.58, 0.53, 0.53, 0.53, 1.06, 1.06, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301510
     * 3.06, 6.15, 6.15, 6.15,10.54,10.54, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301520
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.34, 0.34, 0.0 , 0.0 , 0.0 , 0.0 ,        BL301530
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,        BL301540
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,        BL301550
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,        BL301560
     * 1.17, 1.03, 1.03, 0.23, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,        BL301570
     * 1.54, 4.00, 4.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,        BL301580
     * 0.0 , 0.0 , 0.0 , 0.22, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 /        BL301590
C                                                                          BL301600
```

```
C***EXHAUST EMISSION FACTOR SLOPE: CALIFORNIA                          BL301610
      DATA DELCA/                                                      BL301620
     * 0.58, 0.70, 0.23, 0.23, 0.23, 0.23, 0.0 , 0.0 , 0.0 , 0.0 ,    BL301630
     * 3.06, 6.40, 2.33, 2.33, 2.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 ,    BL301640
     * 0.0 , 0.0 , 0.0 , 0.16, 0.16, 0.22, 0.22, 0.0 , 0.0 , 0.0 ,    BL301650
     * 0.58, 0.53, 0.41, 0.23, 0.23, 0.23, 0.23, 0.0 , 0.0 , 0.0 ,    BL301660
     * 3.06, 6.15, 5.34, 5.34, 2.33, 2.00, 2.00, 0.0 , 0.0 , 0.0 ,    BL301670
     * 0.0 , 0.0 , 0.0 , 0.11, 0.22, 0.22, 0.22, 0.0 , 0.0 , 0.0 ,    BL301680
     * 0.58, 0.53, 0.23, 0.23, 0.23, 0.23, 0.23, 0.0 , 0.0 , 0.0 ,    BL301690
     * 3.06, 6.15, 5.34, 2.00, 2.00, 2.00, 2.00, 0.0 , 0.0 , 0.0 ,    BL301700
     * 0.0 , 0.0 , 0.11, 0.22, 0.22, 0.22, 0.22, 0.0 , 0.0 , 0.0 ,    BL301710
     * 0.58, 0.53, 0.53, 0.53, 0.53, 0.53, 1.06, 0.0 , 0.0 , 0.0 ,    BL301720
     * 3.06, 6.15, 6.15, 6.15, 6.15,10.54,10.54, 0.0 , 0.0 , 0.0 ,    BL301730
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.34, 0.0 , 0.0 , 0.0 ,    BL301740
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL301750
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL301760
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL301770
     * 0.58, 0.53, 0.53, 0.23, 0.23, 0.23, 0.23, 0.23, 0.23, 0.23,    BL301780
     * 3.06, 6.15, 6.15, 2.00, 2.00, 2.00, 2.00, 2.00, 2.00, 2.00,    BL301790
     * 0.0 , 0.0 , 0.0 , 0.22, 0.22, 0.22, 0.22, 0.22, 0.22, 0.22 /   BL301800
C                                                                      BL301810
C***EXHAUST EMISSION FACTOR SLOPE: HIGH ALTITUDE                       BL301820
      DATA DELHI/                                                      BL301830
     * 0.55, 0.55, 0.23, 0.23, 0.23, 0.23, 0.23, 0.23, 0.23, 0.23,    BL301840
     * 2.81, 4.24, 2.80, 2.80, 2.80, 2.30, 2.00, 2.00, 2.00, 2.00,    BL301850
     * 0.0 , 0.0 , 0.0 , 0.08, 0.16, 0.16, 0.16, 0.22, 0.22, 0.22,    BL301860
     * 0.55, 0.55, 0.41, 0.41, 0.41, 0.41, 0.23, 0.23, 0.0 , 0.0 ,    BL301870
     * 2.81, 4.24, 5.34, 5.34, 5.34, 5.34, 2.00, 2.00, 0.0 , 0.0 ,    BL301880
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.11, 0.11, 0.22, 0.0 ,    BL301890
     * 0.55, 0.55, 0.41, 0.23, 0.23, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL301900
     * 2.81, 4.24, 5.34, 2.00, 2.00, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL301910
     * 0.0 , 0.0 , 0.11, 0.11, 0.22, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL301920
     * 0.55, 0.55, 0.55, 0.55, 1.06, 1.06, 0.0 , 0.0 , 0.0 , 0.0 ,    BL301930
     * 2.81, 4.24, 4.24, 4.24,10.54,10.54, 0.0 , 0.0 , 0.0 , 0.0 ,    BL301940
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.34, 0.0 , 0.0 , 0.0 , 0.0 ,    BL301950
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL301960
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL301970
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL301980
     * 0.55, 0.55, 0.55, 0.23, 0.23, 0.23, 0.23, 0.23, 0.23, 0.23,    BL301990
     * 2.81, 4.24, 4.24, 2.00, 2.00, 2.00, 2.00, 2.00, 2.00, 2.00,    BL302000
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     * 0.0 , 0.0 , 0.0 , 0.22, 0.22, 0.22, 0.22, 0.22, 0.22, 0.22 /      BL702010
C                                                                         BL702020
      END                                                                 BL702030
```

```
      BLOCK DATA                                                        BL400010
                                                                        BL400020
C                                                                       BL400030
      COMMON/IDLBCM/IDLB49,IDLBCA,IDLBHI                                BL400040
      COMMON/IDLDCM/IDEL49,IDELCA,IDELHI                                BL400050
C                                                                       BL400060
      REAL IDLB49(10,3,6),IDLBCA(10,3,6),IDLBHI(10,3,6)                 BL400070
      REAL IDEL49(10,3,6),IDELCA(10,3,6),IDELHI(10,3,6)                 BL400080
C                                                                       BL400090
C***IDLE EMISSION FACTOR INTERCEPT: 49 STATE                            BL400100
      DATA IDLB49/                                                      BL400110
     * 2.01, 0.68, 0.27, 0.03, 0.07, 0.07, 0.0 , 0.0 , 0.0 , 0.0 ,BL400120
     * 16.42, 12.73, 5.43, 0.88, 0.41, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400130
     * 0.16, 0.26, 0.16, 0.36, 0.22, 0.04, 0.2 , 0.0 , 0.0 , 0.0 ,BL400140
     * 2.01, 0.68, 0.28, 0.24, 0.08, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400150
     * 16.42, 12.73, 2.02, 1.82, 0.49, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400160
     * 0.16, 0.26, 0.16, 0.25, 0.18, 0.04, 0.0 , 0.0 , 0.0 , 0.0 ,BL400170
     * 2.93, 1.86, 0.24, 0.08, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400180
     * 17.24, 18.62, 1.82, 0.49, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400190
     * 0.18, 0.27, 0.18, 0.04, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400200
     * 3.85, 0.71, 3.09, 0.73, 0.20, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400210
     * 24.63, 15.70, 21.92, 19.23, 1.54, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400220
     * 0.02, 0.04, 0.02, 0.02, 0.01, 0.01, 0.0 , 0.0 , 0.0 , 0.0 ,BL400230
     * 0.50, 0.40, 0.40, 0.25, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400240
     * 1.32, 0.66, 0.66, 0.66, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400250
     * 1.11, 1.09, 0.99, 0.27, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400260
     * 4.05, 2.13, 1.72, 0.13, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400270
     * 8.27, 4.87, 3.57, 0.65, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 /BL400280
     * 0.01, 0.02, 0.04, 0.01, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 BL400290
C                                                                       BL400300
C***IDLE EMISSION FACTOR INTERCEPT: CALIFORNIA                          BL400310
      DATA IDLBCA/                                                      BL400320
     * 2.01, 0.93, 0.04, 0.02, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400330
     * 16.42, 15.07, 0.18, 0.18, 0.14, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400340
     * 0.16, 0.24, 0.07, 0.11, 0.08, 0.07, 0.07, 0.0 , 0.0 , 0.0 ,BL400350
     * 2.01, 0.68, 0.28, 0.07, 0.04, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400360
     * 16.42, 12.73, 2.02, 1.72, 0.48, 0.49, 0.0 , 0.0 , 0.0 , 0.0 ,BL400370
     * 0.16, 0.26, 0.16, 0.25, 0.21, 0.09, 0.04, 0.0 , 0.0 , 0.0 ,BL400380
     * 2.93, 1.86, 0.07, 0.04, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400390
     * 17.24, 18.62, 1.72, 0.48, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,BL400400
     * 0.18, 0.27, 0.25, 0.09, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,
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     *  3.85,  0.71,  3.09,  0.18,  0.05,  0.07,  0.01,  0.0 ,  0.0 ,  0.0 ,BL400410
     * 24.63, 15.70, 21.92,  4.40,  4.04,  0.32,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400420
     *  0.02,  0.04,  0.02,  0.05,  0.05,  0.04,  0.07,  0.0 ,  0.0 ,  0.0 ,BL400430
     *  0.50,  0.40,  0.40,  0.25,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400440
     *  1.32,  0.66,  0.66,  0.66,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400450
     *  1.11,  1.00,  0.93,  0.81,  0.27,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400460
     *  3.46,  1.81,  1.48,  0.32,  0.11,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400470
     * 11.57,  6.82,  5.00,  0.91,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400480
     *  0.01,  0.02,  0.04,  0.01,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 /BL400490
C
C***IDLE EMISSION FACTOR INTERCEPT: HIGH ALTITUDE                              BL400500
      DATA IDLBHI/                                                             BL400510
     *  2.29,  1.04,  0.24,  0.17,  0.24,  0.05,  0.05,  0.07,  0.0 ,  0.0 ,BL400520
     * 20.70, 20.71,  4.48,  3.01,  4.48,  1.81,  0.84,  0.41,  0.0 ,  0.0 ,BL400530
     *  0.26,  0.19,  0.08,  0.06,  0.28,  0.06,  0.14,  0.02,  0.04,  0.0 ,BL400540
     *  2.29,  1.04,  0.22,  0.28,  0.22,  0.39,  0.12,  0.08,  0.0 ,  0.0 ,BL400550
     * 20.70, 20.71,  5.60,  2.02,  5.60,  3.75,  1.01,  0.49,  0.0 ,  0.0 ,BL400560
     *  0.26,  0.19,  0.08,  0.04,  0.25,  0.04,  0.11,  0.18,  0.04,  0.0 ,BL400570
     *  3.40,  3.50,  0.39,  0.12,  0.08,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400580
     * 38.84, 48.25,  3.75,  1.01,  0.49,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400590
     *  0.10,  0.17,  0.11,  0.18,  0.04,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400600
     *  4.46,  1.34,  5.82,  1.22,  0.32,  0.20,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400610
     * 55.59, 40.68, 56.80, 31.15,  3.17,  1.54,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400620
     *  0.01,  0.03,  0.02,  0.01,  0.01,  0.01,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400630
     *  0.58,  0.75,  0.75,  0.34,  0.25,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400640
     *  2.97,  1.71,  1.71,  1.71,  0.66,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400650
     *  0.64,  0.64,  0.64,  0.27,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400660
     *  4.01,  3.59,  2.87,  0.20,  0.13,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400670
     * 26.07,  6.68,  4.90,  1.34,  0.65,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 ,BL400680
     *  0.01,  0.01,  0.03,  0.01,  0.04,  0.0 ,  0.0 ,  0.0 ,  0.0 ,  0.0 /BL400690
C
C***IDLE EMISSION FACTOR SLOPE: 49 STATE                                       BL400700
      DATA IDEL49/                                                             BL400710
     * 0.18, 0.20, 0.07, 0.07, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,            BL400720
     * 2.55, 2.92, 0.83, 0.67, 0.59, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,            BL400730
     * 0.0 , 0.0 , 0.0 , 0.07, 0.06, 0.08, 0.0 , 0.0 , 0.0 , 0.0 ,            BL400740
     * 0.18, 0.20, 0.19, 0.19, 0.06, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,            BL400750
     * 2.55, 2.92, 1.56, 1.56, 0.25, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,            BL400760
     * 0.0 , 0.0 , 0.0 , 0.02, 0.01, 0.02, 0.0 , 0.0 , 0.0 , 0.0 ,            BL400770
     * 0.18, 0.20, 0.19, 0.06, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,            BL400780
                                                                               BL400790
                                                                               BL400800
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     * 2.55, 2.92, 1.56, 0.25, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400810
     * 0.0 , 0.0 , 0.01, 0.02, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400820
     * 0.18, 0.20, 0.20, 0.20, 0.40, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400830
     * 2.55, 2.92, 2.92, 2.92, 5.00, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400840
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400850
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400860
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400870
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400880
     * 0.36, 0.62, 0.62, 0.10, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400890
     * 1.28, 1.12, 1.12, 0.48, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 /    BL400900
     * 0.0 , 0.0 , 0.0 , 0.01, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 /    BL400910
C                                                                      BL400920
C***IDLE EMISSION FACTOR SLOPE: CALIFORNIA                             BL400930
      DATA IDELCA/                                                     BL400940
     * 0.18, 0.31, 0.01, 0.01, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400950
     * 2.55, 3.15, 0.08, 0.08, 0.06, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400960
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400970
     * 0.18, 0.20, 0.19, 0.05, 0.05, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL400980
     * 2.55, 2.92, 1.56, 1.56, 0.29, 0.29, 0.0 , 0.0 , 0.0 , 0.0 ,    BL400990
     * 0.0 , 0.0 , 0.0 , 0.02, 0.04, 0.04, 0.04, 0.0 , 0.0 , 0.0 ,    BL401000
     * 0.18, 0.20, 0.05, 0.05, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401010
     * 2.55, 2.92, 1.56, 0.29, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401020
     * 0.0 , 0.0 , 0.02, 0.04, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401030
     * 0.18, 0.20, 0.20, 0.20, 0.20, 0.20, 0.40, 0.0 , 0.0 , 0.0 ,    BL401040
     * 2.55, 2.92, 2.92, 2.92, 2.92, 5.00, 0.0 , 0.0 , 0.0 , 0.0 ,    BL401050
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401060
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401070
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401080
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401090
     * 0.31, 0.28, 0.29, 0.12, 0.12, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,    BL401100
     * 1.80, 3.61, 3.61, 1.18, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 /    BL401110
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 /    BL401120
C                                                                      BL401130
C***IDLE EMISSION FACTOR SLOPE: HIGH ALTITUDE                          BL401140
      DATA IDELHI/                                                     BL401150
     * 0.21, 0.14, 0.02, 0.07, 0.07, 0.07, 0.07, 0.07, 0.0 , 0.0 ,    BL401160
     * 0.53, 1.15, 0.99, 0.83, 0.83, 0.67, 0.59, 0.59, 0.0 , 0.0 ,    BL401170
     * 0.0 , 0.0 , 0.0 , 0.04, 0.06, 0.06, 0.06, 0.08, 0.08, 0.0 ,    BL401180
     * 0.21, 0.14, 0.08, 0.19, 0.19, 0.19, 0.06, 0.06, 0.0 , 0.0 ,    BL401190
     * 0.53, 1.15, 1.24, 1.56, 1.56, 1.56, 0.25, 0.25, 0.0 , 0.0 ,    BL401200
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     * 0.0 , 0.0 , 0.0 , 0.07, 0.02, 0.02, 0.01, 0.01, 0.02, 0.0 ,      BL401210
     * 0.21, 0.14, 0.19, 0.06, 0.06, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401220
     * 0.53, 1.15, 1.56, 0.25, 0.25, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401230
     * 0.0 , 0.0 , 0.01, 0.01, 0.02, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401240
     * 0.21, 0.14, 0.14, 0.20, 0.40, 0.40, 0.0 , 0.0 , 0.0 , 0.0 ,      BL401250
     * 0.53, 1.15, 1.15, 2.92, 5.00, 5.00, 0.0 , 0.0 , 0.0 , 0.0 ,      BL401260
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401270
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401280
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401290
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401300
     * 0.36, 0.62, 0.62, 0.10, 0.10, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401310
     * 0.66, 1.12, 1.12, 0.48, 0.48, 0.0 , 0.0 , 0.0 , 0.0 , 0.0 ,      BL401320
     * 0.0 , 0.0 , 0.0 , 0.0 , 0.01, 0.0 , 0.0 , 0.0 , 0.0 , 0.0  /     BL401330
C                                                                        BL401340
      END                                                                BL401350
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      BLOCK DATA                                                          BL500010
C                                                                         BL500020
      COMMON/IMCRED/PCIMHN,PCIMHY,PCIMCN,PCIMCY                           BL500030
C                                                                         BL500040
      INTEGER PCIMHN(19,5,4),PCIMHY(19,5,4),PCIMCN(19,5,4),               BL500050
     *  PCIMCY(19,5,4)                                                   BL500060
C                                                                         BL500070
C                                                                         BL500080
      DATA PCIMHN/ 3, 6,11,15,19,24,27,31,35,39,41,42,44,46,47,48,49,51,BL500090
     * 52,   4, 8,13,18,22,28,34,36,40,42,45,46,49,50,51,52,54,56,57,    BL500100
     *        7,14,20,28,34,39,43,46,49,52,54,55,57,59,59,60,61,62,63,    BL500110
     *        8,15,22,30,36,41,46,49,52,54,56,58,59,61,62,63,64,65,65,    BL500120
     *        8,16,23,31,37,42,46,50,53,55,57,59,60,61,62,63,64,65,66,    BL500130
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     *        6,11,16,20,23,27,31,33,36,38,40,41,43,44,45,46,47,48,49,    BL500150
     *       10,18,24,28,33,36,40,42,45,47,48,50,51,53,55,55,55,57,58,    BL500160
     *       12,20,26,32,37,40,43,46,49,51,52,54,55,56,57,59,59,60,61,    BL500170
     *       13,22,28,34,39,43,46,49,51,54,55,57,58,59,61,61,62,63,64,    BL500180
     *        4,11,22,32,42,49,54,58,62,64,66,68,69,71,72,73,74,74,75,    BL500190
     *        4,13,25,37,46,53,58,62,65,67,69,71,72,73,74,75,76,77,77,    BL500200
     *        4,15,28,40,49,55,60,64,67,69,71,72,74,75,76,77,77,78,79,    BL500210
     *        5,17,31,43,51,58,63,66,69,71,73,74,75,76,77,78,79,79,80,    BL500220
     *        5,18,32,44,53,59,63,67,70,72,73,75,76,77,78,79,79,80,81,    BL500230
     *        3, 7,14,23,31,38,44,49,53,56,58,60,62,63,65,66,67,68,69,    BL500240
     *        3, 7,15,24,33,40,46,51,54,57,60,62,63,65,66,67,68,69,70,    BL500250
     *        3, 7,16,25,34,41,47,51,55,58,60,62,64,65,67,68,69,70,71,    BL500260
     *        3, 8,17,26,35,42,48,52,56,59,61,63,65,66,68,69,70,71,71,    BL500270
C                                                                         BL500280
      DATA PCIMHY/ 6,13,17,20,25,32,35,40,45,47,49,50,53,53,54,56,57,57,BL500290
     * 58,   9,14,19,25,31,36,43,45,50,51,53,54,55,56,58,58,61,63,63,    BL500300
     *       12,19,27,35,41,44,51,53,55,57,59,61,61,63,65,65,66,66,67,    BL500310
     *       13,24,33,40,46,50,54,57,59,61,63,65,65,66,68,68,69,70,71,    BL500320
     *       14,25,35,42,48,53,56,59,62,64,65,66,68,69,70,70,71,72,72,    BL500330
     *        9,13,15,18,22,26,28,31,33,35,37,39,40,42,44,44,44,46,48,    BL500340
     *       13,16,20,26,31,34,38,41,43,44,45,47,48,50,52,52,53,54,55,    BL500350
     *       14,21,28,33,38,41,45,47,50,52,53,54,56,57,59,60,61,61,62,    BL500360
     *       15,24,31,36,41,44,48,50,52,54,56,58,58,60,61,62,63,63,65,    BL500370
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     *      13,36,53,62,69,73,76,78,80,81,82,83,83,84,85,85,86,86,87,  BL500410
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     *      16,39,54,64,70,74,77,80,81,83,84,85,85,86,87,87,87,88,88,  BL500430
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     *       7,24,36,52,54,65,66,69,72,75,75,75,77,79,79,80,80,81,81,  BL500450
     *      11,29,45,56,63,68,70,74,76,76,78,80,80,81,82,82,83,84,84,  BL500460
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     *      15,38,54,64,70,74,77,79,81,83,84,85,85,86,87,87,88,88,88/  BL500490
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C                                                                      BL500510
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     *      12,21,27,32,36,40,44,47,49,52,53,55,56,58,59,60,61,62,62,  BL500540
     *      14,23,29,35,39,43,47,50,52,55,56,58,59,60,61,62,63,64,65,  BL500550
     *      15,25,31,36,41,45,49,52,54,56,58,59,61,62,63,64,65,65,66,  BL500560
     *      10,15,20,23,26,28,31,32,34,35,37,37,38,40,41,41,42,43,44,  BL500570
     *      17,25,29,32,36,38,41,42,44,46,47,48,49,50,51,52,52,53,54,  BL500580
     *      21,31,36,40,44,47,49,51,53,55,56,57,58,59,60,61,62,62,63,  BL500590
     *      23,34,39,43,46,49,52,54,56,57,59,60,61,62,63,63,64,65,65,  BL500600
     *      25,36,41,45,49,52,54,56,58,60,61,62,63,64,65,66,67,67,68,  BL500610
     *       0, 4, 8,14,20,26,30,33,35,39,42,44,45,48,49,50,50,53,55,  BL500620
     *       0, 5,10,18,23,28,32,37,40,43,45,47,49,51,52,53,54,56,57,  BL500630
     *       1, 6,13,21,27,33,38,42,45,48,50,52,54,56,57,59,60,61,62,  BL500640
     *       1, 6,14,22,28,34,39,43,47,49,52,54,55,57,58,60,61,62,63,  BL500650
     *       2, 7,14,22,29,35,40,44,47,50,52,54,56,58,59,60,61,62,63,  BL500660
     *       0, 2, 7,13,19,24,29,33,37,40,43,45,47,49,50,52,53,54,55,  BL500670
     *       0, 4,11,19,26,32,37,42,45,48,51,53,55,56,58,59,60,62,62,  BL500680
     *       1, 5,13,21,28,34,40,44,48,51,53,55,57,58,60,61,62,63,64,  BL500690
     *       2, 8,18,28,36,42,47,52,55,58,60,62,63,65,66,67,68,69,70,  BL500700
     *       3,12,23,33,42,48,53,57,60,63,65,66,68,69,70,71,72,73,74/  BL500710
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      DATA PCIMCY/11,20,26,30,34,40,43,47,50,52,53,55,58,57,58,59,61,60,BL500730
     * 62,  16,23,29,35,40,43,49,51,54,55,57,58,59,60,62,62,64,66,66,  BL500740
     *      20,29,37,42,47,49,55,57,59,61,62,64,64,66,67,68,68,68,70,  BL500750
     *      22,34,41,46,51,55,58,61,63,64,65,67,68,69,70,70,71,72,73,  BL500760
     *      23,35,42,48,53,57,60,62,65,66,68,69,70,71,72,72,73,74,74,  BL500770
     *      17,25,27,31,35,38,40,43,44,45,49,50,50,53,54,54,55,56,58,  BL500780
     *      26,33,36,41,46,48,51,54,56,57,58,59,60,61,63,63,64,65,66,  BL500790
     *      30,41,47,50,54,57,59,61,63,65,65,66,67,68,69,70,71,71,71,  BL500800
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     *     33,47,52,56,60,62,65,67,68,69,70,71,72,73,74,74,75,75,76,   BL500820
     *      5,24,40,48,56,60,65,67,69,72,72,74,75,76,77,78,78,79,79,   BL500830
     *      8,27,42,51,58,63,66,69,71,73,74,76,76,77,78,79,79,80,80,   BL500840
     *     11,29,43,52,59,64,67,70,72,74,75,76,77,78,79,80,80,81,81,   BL500850
     *     13,30,43,52,59,64,68,71,73,75,76,77,78,79,80,80,81,82,82,   BL500860
     *     14,30,43,52,59,64,68,71,73,75,76,77,78,79,80,81,81,82,82,   BL500870
     *      9,30,41,56,58,68,68,71,74,77,77,78,79,81,81,81,81,82,83,   BL500880
     *     15,37,51,60,66,70,72,76,77,78,80,82,82,82,83,83,84,84,85,85,BL500890
     *     18,39,52,62,68,71,74,77,78,79,82,82,82,84,84,84,85,86,86,   BL500900
     *     21,43,57,66,71,75,78,80,81,83,84,85,85,86,86,87,87,88,88,   BL500910
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000004      000    0
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END ELT.

@RKPT PRINT1
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000004       000  0
000005       000     97   87    1   20   40   20   10   60   25   20   40   20   15   45   15
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000008       000  0

END ELT.

@ASKPT PRINT$
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030003       000   0
030004       000   0
030005       000      78   82    2   20   40   20   10   60   25   20   40   20   15   45   15
030006       000   0
030007       000   0
030008       000   0

END ELT.

@PRKPT PRINTS
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* TOTAL HC EMISSION FACTORS INCLUDE EVAP. HC EMISSION FACTORS

CAL. YEAR: 1977	TEMP: 75.0(F)	VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
REGION: 49-STATE	15.0/15.0/15.0 MPH (5.0)		1.000/	.000/	.000/	.000/	.000/	.000
					.0/	.0/	.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
TOTAL HC:	6.88	7.74	11.10	39.89	5.30	11.73	6.88
*EVAP HC:	2.02	2.22	3.53	2.92	.00	1.60	----
EXHAUST CO:	61.41	66.07	82.12	359.71	39.61	37.84	61.41
EXHAUST NOX:	2.53	2.57	4.30	10.29	23.06	.11	2.53

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.66
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	25.17
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

CAL. YEAR: 1977	TEMP: 75.0(F)	VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
REGION: 49-STATE	30.0/30.0/30.0 MPH (5.0)		1.000/	.000/	.000/	.000/	.000/	.000
					.0/	.0/	.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
TOTAL HC:	4.78	5.36	8.11	17.76	3.29	7.73	4.78
*EVAP HC:	2.02	2.22	3.53	2.92	.00	1.60	----
EXHAUST CO:	32.10	35.18	43.28	176.45	19.89	22.66	32.10
EXHAUST NOX:	3.12	3.15	5.62	11.66	18.54	.13	3.12

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.66
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	25.17
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

CAL. YEAR: 1977	TEMP: 75.0(F)	VEH. TYPE:	LDV	LDT1	LDT2	HDG	HDD	MC
REGION: 49-STATE	45.0/45.0/45.0 MPH (5.0)		1.000/	.000/	.000/	.000/	.000/	.000
					.0/	.0/	.0	

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
TOTAL HC:	4.01	4.51	6.98	12.13	2.53	6.27	4.01
*EVAP HC:	2.02	2.22	3.53	2.92	.00	1.60	----
EXHAUST CO:	22.01	24.47	30.15	141.21	14.27	17.19	22.01
EXHAUST NOX:	3.46	3.50	6.37	13.04	21.23	.15	3.46

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.66
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	25.17
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

25.1698 61.4053 32.1048 22.0122

EMISSION CORRECTION FACTORS FOR REGION: LOW ALTITUDE

M	H	C	T	YEAR: 1985 SPEED: 0	1985 15	1985 30	1985 45	1990 0	1990 15	1990 30	1990 45
LDV	20	10	20	.49	.54	.58	.61	.33	.31	.34	.36
	20	10	40	.44	.48	.52	.54	.30	.28	.31	.33
	20	35	20	.90	.97	1.08	1.18	.65	.60	.67	.73
	20	35	40	.72	.77	.86	.93	.55	.50	.57	.62
	20	60	20	1.31	1.40	1.59	1.74	.97	.88	1.01	1.10
	20	60	40	1.01	1.07	1.21	1.32	.80	.73	.83	.91
	40	10	20	.50	.55	.60	.63	.34	.32	.36	.38
	40	10	40	.45	.49	.53	.56	.31	.30	.33	.34
	40	35	20	.91	.98	1.10	1.19	.66	.61	.69	.75
	40	35	40	.73	.79	.88	.95	.56	.52	.58	.63
	40	60	20	1.32	1.41	1.60	1.75	.98	.90	1.02	1.12
	40	60	40	1.02	1.08	1.22	1.33	.81	.74	.84	.92
LDT	20	10	20	.98	1.20	1.30	1.37	.52	.78	.84	.89
	20	10	40	.89	1.07	1.15	1.20	.47	.69	.74	.78
	20	35	20	1.59	2.07	2.31	2.51	.85	1.34	1.51	1.64
	20	35	40	1.28	1.61	1.79	1.93	.68	1.04	1.16	1.25
	20	60	20	2.21	2.94	3.33	3.65	1.18	1.91	2.17	2.38
	20	60	40	1.67	2.16	2.44	2.66	.89	1.39	1.58	1.72
	40	10	20	.99	1.22	1.31	1.38	.53	.78	.85	.90
	40	10	40	.90	1.09	1.16	1.22	.48	.70	.75	.79
	40	35	20	1.61	2.08	2.33	2.52	.86	1.35	1.52	1.65
	40	35	40	1.29	1.63	1.81	1.95	.69	1.05	1.17	1.26
	40	60	20	2.22	2.95	3.34	3.67	1.19	1.92	2.18	2.39
	40	60	40	1.69	2.17	2.45	2.68	.90	1.40	1.59	1.73
MC	20	10	20	.15	.27	.29	.30	.07	.13	.13	.13
	20	10	40	.13	.24	.25	.25	.06	.11	.11	.11
	20	35	20	.26	.50	.55	.59	.11	.23	.25	.27
	20	35	40	.20	.38	.41	.45	.09	.18	.19	.20
	20	60	20	.36	.72	.81	.89	.16	.34	.38	.42
	20	60	40	.26	.52	.58	.64	.12	.24	.27	.30
	40	10	20	.15	.28	.29	.30	.07	.13	.13	.13
	40	10	40	.14	.24	.25	.26	.06	.11	.11	.11
	40	35	20	.26	.50	.55	.60	.12	.23	.26	.28
	40	35	40	.20	.38	.42	.45	.09	.18	.19	.21
	40	60	20	.37	.72	.82	.89	.16	.34	.38	.42
	40	60	40	.27	.52	.59	.64	.12	.25	.27	.30
HDG				1.57	3.98	4.68	5.69	1.55	2.53	3.21	3.96
HDD				.03	.60	.53	.51	.03	.59	.52	.50

EMISSION CORRECTION FACTORS FOR REGION: CALIFORNIA

				YEAR:	1985	1985	1985	1985	1990	1990	1990	1990
				SPEED:	0	15	30	45	0	15	30	45
M	H	C	T									
LDV	20	10	20		.19	.41	.45	.47	.06	.32	.35	.37
	20	10	40		.17	.38	.41	.43	.06	.29	.32	.34
	20	35	20		.29	.77	.87	.94	.12	.63	.71	.77
	20	35	40		.25	.66	.74	.80	.10	.54	.61	.66
	20	60	20		.39	1.13	1.28	1.41	.17	.94	1.07	1.17
	20	60	40		.33	.94	1.07	1.17	.14	.78	.89	.98
	40	10	20		.18	.43	.47	.49	.07	.33	.37	.39
	40	10	40		.17	.40	.43	.45	.06	.31	.34	.36
	40	35	20		.29	.79	.88	.96	.12	.64	.73	.79
	40	35	40		.25	.68	.76	.82	.10	.55	.62	.68
	40	60	20		.39	1.15	1.30	1.43	.17	.95	1.08	1.19
	40	60	40		.33	.96	1.09	1.19	.14	.80	.91	1.00
LDT	20	10	20		.82	.86	.90	.92	.46	.56	.60	.62
	20	10	40		.79	.81	.83	.85	.43	.53	.56	.58
	20	35	20		1.36	1.47	1.62	1.74	.80	1.01	1.13	1.21
	20	35	40		1.19	1.28	1.40	1.49	.70	.88	.98	1.05
	20	60	20		1.89	2.08	2.34	2.56	1.13	1.46	1.65	1.81
	20	60	40		1.60	1.75	1.97	2.14	.97	1.24	1.40	1.53
	40	10	20		.85	.89	.93	.95	.48	.59	.63	.65
	40	10	40		.80	.84	.87	.88	.45	.55	.58	.60
	40	35	20		1.38	1.50	1.65	1.77	.81	1.04	1.15	1.24
	40	35	40		1.21	1.31	1.43	1.53	.72	.91	1.01	1.08
	40	60	20		1.92	2.11	2.38	2.59	1.15	1.49	1.68	1.83
	40	60	40		1.63	1.78	2.00	2.17	.99	1.27	1.43	1.56
MC	20	10	20		.26	.29	.31	.32	.12	.13	.14	.14
	20	10	40		.23	.25	.27	.28	.11	.11	.12	.12
	20	35	20		.48	.53	.59	.64	.23	.24	.27	.29
	20	35	40		.37	.40	.45	.48	.17	.18	.20	.21
	20	60	20		.70	.77	.87	.95	.34	.35	.40	.43
	20	60	40		.50	.55	.63	.68	.24	.25	.28	.31
	40	10	20		.27	.29	.31	.33	.13	.13	.14	.14
	40	10	40		.23	.26	.27	.28	.11	.11	.12	.12
	40	35	20		.48	.53	.59	.64	.23	.24	.27	.29
	40	35	40		.37	.41	.45	.48	.18	.18	.20	.21
	40	60	20		.70	.77	.87	.96	.34	.35	.40	.44
	40	60	40		.51	.56	.63	.69	.24	.25	.28	.31
HDG					1.19	3.78	4.82	6.06	1.38	2.45	3.27	4.11
HDD					.03	.60	.53	.51	.03	.59	.52	.50

EMISSION CORRECTION FACTORS FOR REGION: HIGH ALTITUDE

M	H	C	T	YEAR: 1985 SPEED: 0	1985 15	1985 30	1985 45	1990 0	1990 15	1990 30	1990 45
LDV	20	10	20	.46	.65	.75	.81	.32	.33	.37	.40
	20	10	40	.41	.58	.67	.73	.29	.30	.34	.36
	20	35	20	.69	1.18	1.35	1.48	.65	.63	.72	.79
	20	35	40	.71	.94	1.07	1.18	.55	.53	.61	.66
	20	60	20	1.31	1.70	1.95	2.15	.97	.93	1.07	1.17
	20	60	40	1.01	1.29	1.48	1.63	.80	.77	.87	.96
	40	10	20	.47	.66	.76	.82	.34	.34	.38	.41
	40	10	40	.42	.59	.68	.74	.31	.31	.35	.38
	40	35	20	.69	1.19	1.36	1.49	.66	.64	.73	.80
	40	35	40	.72	.95	1.08	1.19	.56	.55	.62	.68
	40	60	20	1.32	1.71	1.96	2.16	.99	.95	1.08	1.19
	40	60	40	1.02	1.30	1.49	1.64	.82	.78	.89	.97
LDT	20	10	20	1.07	1.48	1.76	1.96	.55	.86	.99	1.09
	20	10	40	.96	1.32	1.57	1.75	.49	.76	.89	.97
	20	35	20	1.87	2.58	3.00	3.33	.94	1.49	1.72	1.89
	20	35	40	1.49	2.01	2.34	2.60	.75	1.16	1.33	1.47
	20	60	20	2.67	3.69	4.25	4.71	1.32	2.12	2.44	2.69
	20	60	40	2.01	2.70	3.12	3.45	1.00	1.55	1.78	1.97
	40	10	20	1.07	1.48	1.75	1.95	.55	.86	1.00	1.09
	40	10	40	.96	1.31	1.56	1.74	.49	.76	.89	.97
	40	35	20	1.86	2.58	3.00	3.32	.93	1.49	1.72	1.89
	40	35	40	1.48	2.01	2.34	2.59	.75	1.16	1.33	1.47
	40	60	20	2.66	3.68	4.24	4.70	1.32	2.13	2.44	2.69
	40	60	40	2.00	2.70	3.11	3.44	1.00	1.55	1.78	1.97
MC	20	10	20	.26	.35	.44	.52	.08	.13	.17	.19
	20	10	40	.23	.30	.39	.46	.07	.11	.15	.17
	20	35	20	.51	.64	.77	.87	.16	.25	.29	.33
	20	35	40	.39	.49	.59	.68	.12	.18	.22	.26
	20	60	20	.76	.94	1.10	1.23	.24	.36	.42	.47
	20	60	40	.55	.68	.79	.89	.17	.26	.30	.34
	40	10	20	.26	.34	.44	.51	.08	.13	.16	.19
	40	10	40	.22	.30	.39	.46	.07	.11	.14	.17
	40	35	20	.51	.64	.76	.86	.16	.24	.29	.33
	40	35	40	.38	.48	.59	.67	.12	.18	.22	.25
	40	60	20	.76	.94	1.09	1.22	.24	.36	.42	.47
	40	60	40	.54	.67	.79	.88	.17	.26	.30	.34
HDG				1.83	5.53	6.52	7.95	1.62	3.02	3.80	4.67
HDD				.06	.86	.77	.74	.03	.65	.57	.55

NORMAL EXIT. EXECUTION TIME: 41518 MILLISECONDS.

$MARKPT PRINTS

* TOTAL HC EMISSION FACTORS INCLUDE EVAP. HC EMISSION FACTORS

CAL. YEAR: 1977 TEMP: 75.0(F) VEH. TYPE: LDV 1.000/ LDT1 .000/ LDT2 .000/ HDG .000/ HDD .000/ MC .000
REGION: 49-STATE 15.0/15.0/15.0 MPH (5.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
TOTAL HC:	6.88	7.74	11.10	39.89	5.30	11.73	6.88
*EVAP HC:	2.02	2.22	3.53	2.92	.00	1.60	----
EXHAUST CO:	61.41	66.07	82.12	359.71	39.61	37.84	61.41
EXHAUST NOX:	2.53	2.57	4.30	10.29	23.06	.11	2.53

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.66
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	25.17
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

CAL. YEAR: 1977 TEMP: 75.0(F) VEH. TYPE: LDV 1.000/ LDT1 .000/ LDT2 .000/ HDG .000/ HDD .000/ MC .000
REGION: 49-STATE 30.0/30.0/30.0 MPH (5.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
TOTAL HC:	4.78	5.38	8.11	17.76	3.29	7.73	4.78
*EVAP HC:	2.02	2.22	3.53	2.92	.00	1.60	----
EXHAUST CO:	32.10	35.18	43.28	176.45	19.89	22.66	32.10
EXHAUST NOX:	3.12	3.15	5.62	11.66	18.54	.13	3.12

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.66
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	25.17
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

CAL. YEAR: 1977 TEMP: 75.0(F) VEH. TYPE: LDV 1.000/ LDT1 .000/ LDT2 .000/ HDG .000/ HDD .000/ MC .000
REGION: 49-STATE 45.0/45.0/45.0 MPH (5.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
TOTAL HC:	4.01	4.51	6.98	12.13	2.53	6.27	4.01
*EVAP HC:	2.02	2.22	3.53	2.92	.00	1.60	----
EXHAUST CO:	22.01	24.47	30.15	141.21	14.27	17.19	22.01
EXHAUST NOX:	3.46	3.50	6.37	13.04	21.23	.15	3.46

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.66
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	25.17
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

25.1698 61.4053 32.1048 22.0122

EMISSION CORRECTION FACTORS FOR REGION: LOW ALTITUDE

M	H	C	T	YEAR: 1987 SPEED: 0	1987 15	1997 30	1997 45
LDV	20	10	20	.39	.41	.45	.47
	20	10	40	.35	.37	.40	.42
	20	35	20	.79	.76	.85	.93
	20	35	40	.62	.62	.70	.75
	20	60	20	1.11	1.10	1.26	1.38
	20	60	40	.99	.97	.99	1.08
	40	10	20	.41	.42	.46	.49
	40	10	40	.37	.35	.42	.44
	40	35	20	.76	.77	.87	.94
	40	35	40	.67	.63	.71	.77
	40	60	20	1.12	1.12	1.27	1.39
	40	60	40	.89	.89	1.00	1.10
LDT	20	10	20	.77	1.01	1.09	1.15
	20	10	40	.70	.90	.97	1.01
	20	35	20	1.25	1.73	1.94	2.10
	20	35	40	1.01	1.35	1.50	1.62
	20	60	20	1.77	2.46	2.79	3.06
	20	60	40	1.32	1.81	2.04	2.23
	40	10	20	.79	1.02	1.10	1.16
	40	10	40	.71	.91	.98	1.02
	40	35	20	1.26	1.75	1.95	2.12
	40	35	40	1.02	1.37	1.52	1.63
	40	60	20	1.75	2.47	2.80	3.07
	40	60	40	1.33	1.82	2.06	2.25
MC	20	10	20	.10	.18	.18	.19
	20	10	40	.09	.15	.16	.16
	20	35	20	.16	.32	.36	.38
	20	35	40	.13	.25	.27	.29
	20	60	20	.27	.47	.53	.58
	20	60	40	.17	.34	.38	.41
	40	10	20	.10	.18	.19	.19
	40	10	40	.09	.16	.16	.16
	40	35	20	.16	.33	.36	.39
	40	35	40	.13	.25	.27	.29
	40	60	20	.23	.47	.53	.58
	40	60	40	.17	.34	.38	.41
HDG				1.52	3.22	3.91	4.79
HDD				.07	.59	.53	.51

EMISSION CORRECTION FACTORS FOR REGION: CALIFORNIA

M	H	C	T	YEAR: 1987 SPEED: 0	1987 15	1987 30	1987 45
LDV	20	10	20	.11	.36	.39	.41
	20	10	40	.10	.33	.36	.38
	20	35	20	.19	.69	.77	.84
	20	35	40	.16	.59	.66	.72
	20	60	20	.25	1.02	1.15	1.27
	20	60	40	.21	.85	.97	1.06
	40	10	20	.11	.37	.41	.43
	40	10	40	.10	.35	.38	.40
	40	35	20	.19	.70	.79	.86
	40	35	40	.16	.61	.68	.74
	40	60	20	.25	1.03	1.17	1.29
	40	60	40	.21	.87	.98	1.08
LDT	20	10	20	.65	.71	.75	.77
	20	10	40	.61	.67	.70	.71
	20	35	20	1.08	1.24	1.37	1.47
	20	35	40	.95	1.08	1.19	1.27
	20	60	20	1.50	1.77	1.99	2.18
	20	60	40	1.28	1.50	1.68	1.83
	40	10	20	.67	.74	.78	.80
	40	10	40	.63	.70	.73	.74
	40	35	20	1.10	1.27	1.40	1.50
	40	35	40	.97	1.11	1.22	1.30
	40	60	20	1.53	1.80	2.02	2.21
	40	60	40	1.31	1.53	1.71	1.86
MC	20	10	20	.17	.19	.20	.20
	20	10	40	.15	.16	.17	.18
	20	35	20	.32	.34	.38	.41
	20	35	40	.24	.26	.29	.31
	20	60	20	.47	.50	.56	.62
	20	60	40	.34	.36	.40	.44
	40	10	20	.18	.19	.20	.21
	40	10	40	.15	.16	.17	.18
	40	35	20	.32	.34	.38	.41
	40	35	40	.25	.26	.29	.31
	40	60	20	.47	.50	.56	.62
	40	60	40	.34	.36	.41	.44
HDG				1.25	3.09	4.01	5.02
HDD				.03	.60	.52	.50

EMISSION CORRECTION FACTORS FOR REGION: HIGH ALTITUDE

M	H	C	T	YEAR: 1987 SPEED: 0	1987 15	1987 30	1987 45
LDV	20	10	20	.3[illegible]	.47	.53	.5[illegible]
	20	10	40	.3[illegible]	.43	.48	.52
	20	35	20	.75	.87	.99	1.09
	20	35	40	.62	.71	.81	.89
	20	60	20	1.12	1.27	1.45	1.60
	20	60	40	.89	1.00	1.14	1.25
	40	10	20	.4[illegible]	.48	.55	.59
	40	10	40	.36	.44	.49	.53
	40	35	20	.79	.88	1.00	1.10
	40	35	40	.63	.72	.82	.90
	40	60	20	1.1[illegible]	1.28	1.46	1.61
	40	60	40	.91	1.01	1.15	1.26
LDT	20	10	20	.83	1.18	1.39	1.54
	20	10	40	.74	1.05	1.24	1.38
	20	35	20	1.42	2.05	2.37	2.62
	20	35	40	1.14	1.60	1.85	2.05
	20	60	20	2.02	2.92	3.35	3.71
	20	60	40	1.53	2.14	2.47	2.73
	40	10	20	.82	1.18	1.39	1.54
	40	10	40	.74	1.05	1.24	1.37
	40	35	20	1.42	2.05	2.37	2.62
	40	35	40	1.13	1.60	1.85	2.05
	40	60	20	2.01	2.92	3.35	3.71
	40	60	40	1.53	2.14	2.46	2.73
MC	20	10	20	.14	.20	.26	.30
	20	10	40	.12	.18	.23	.27
	20	35	20	.28	.38	.45	.52
	20	35	40	.21	.29	.35	.40
	20	60	20	.41	.56	.65	.73
	20	60	40	.30	.40	.47	.53
	40	10	20	.14	.20	.26	.30
	40	10	40	.12	.17	.23	.27
	40	35	20	.28	.38	.45	.51
	40	35	40	.21	.28	.35	.39
	40	60	20	.41	.55	.64	.72
	40	60	40	.30	.40	.46	.52
HDG				1.69	4.23	5.12	6.27
HDD				.04	.74	.66	.64

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NORMAL EXIT.  EXECUTION TIME:        20891 MILLISECONDS.
 09:45:42   PTCORREV
 DRUM 00:00:00.388 DISC 00:00:00.308 TAPE 00:00:00.000 I/O  00:00:00.694
 CCPU 00:00:00.880 CAU  00:00:11.064 MEMY 00:00:04.981-0056K


63RKPT PRINTS
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* TOTAL HC EMISSION FACTORS INCLUDE EVAP. HC EMISSION FACTORS

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
CAL. YEAR: 1977 TEMP: 75.0(F) 1.000/ .000/ .000/ .000/ .000/ .000
REGION: 49-STATE 15.0/15.0/15.0 MPH (5.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
TOTAL HC:	6.88	7.74	11.10	39.89	5.30	11.73	6.88
*EVAP HC:	2.02	2.22	3.53	2.92	.00	1.60	----
EXHAUST CO:	61.41	66.07	82.12	359.71	39.61	37.84	61.41
EXHAUST NOX:	2.53	2.57	4.30	10.29	23.06	.11	2.53

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.66
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	25.17
IDLE NOX:	.25	.24	.24	.03	1.04	.01	.28

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
CAL. YEAR: 1977 TEMP: 75.0(F) 1.000/ .000/ .000/ .000/ .000/ .000
REGION: 49-STATE 30.0/30.0/30.0 MPH (5.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
TOTAL HC:	4.78	5.36	8.11	17.76	3.29	7.73	4.78
*EVAP HC:	2.02	2.22	3.53	2.92	.00	1.60	----
EXHAUST CO:	32.10	35.14	43.28	176.45	19.89	22.66	32.10
EXHAUST NOX:	3.12	3.15	5.62	11.66	18.54	.13	3.12

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.66
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	25.17
IDLE NOX:	.28	.24	.24	.03	1.04	.01	.28

VEH. TYPE: LDV LDT1 LDT2 HDG HDD MC
CAL. YEAR: 1977 TEMP: 75.0(F) 1.000/ .000/ .000/ .000/ .000/ .000
REGION: 49-STATE 45.0/45.0/45.0 MPH (5.0) .0/ .0/ .0

COMPOSITE EMISSION FACTORS (GM/MILE)

	LDV	LDT1	LDT2	HDG	HDD	MC	ALL MODES
TOTAL HC:	4.01	4.51	6.98	12.13	2.53	6.27	4.01
*EVAP HC:	2.02	2.22	3.53	2.92	.00	1.60	----
EXHAUST CO:	22.01	24.47	30.15	141.21	14.27	17.19	22.01
EXHAUST NOX:	3.46	3.50	6.37	13.04	21.23	.15	3.46

HOT STABILIZED IDLE EMISSION FACTORS (GM/MIN)

IDLE HC:	1.66	1.94	3.52	4.05	.44	4.25	1.66
IDLE CO:	25.17	26.29	37.67	42.93	.93	8.96	25.17
IDLE NOX:	.29	.24	.24	.03	1.04	.01	.28

25.1698 21.4353 32.1048 22.0122

EMISSION CORRECTION FACTORS FOR REGION: LOW ALTITUDE

				YEAR:	1978	1978	1978	1978	1980	1980	1980	1980	1982	1982	1982	1982
				SPEED:	0	15	30	45	0	15	30	45	0	15	30	45
M	H	C	I													
LDV	20	10	20		1.25	1.33	1.40	1.45	1.03	1.13	1.20	1.25	.76	.85	.91	.95
	20	10	40		1.13	1.19	1.24	1.28	.92	1.00	1.06	1.09	.68	.76	.80	.84
	20	35	20		2.02	2.27	2.50	2.70	1.72	1.97	2.19	2.37	1.31	1.49	1.67	1.80
	20	35	40		1.62	1.79	1.96	2.10	1.35	1.53	1.69	1.81	1.03	1.17	1.29	1.39
	20	60	20		2.80	3.20	3.61	3.95	2.42	2.82	3.18	3.49	1.86	2.14	2.42	2.65
	20	60	40		2.10	2.38	2.67	2.92	1.79	2.06	2.32	2.53	1.39	1.58	1.78	1.94
	40	10	20		1.27	1.35	1.42	1.47	1.04	1.15	1.22	1.27	.77	.86	.93	.97
	40	10	40		1.15	1.21	1.26	1.30	.94	1.02	1.07	1.11	.69	.77	.82	.85
	40	35	20		2.04	2.29	2.52	2.72	1.74	1.99	2.21	2.39	1.33	1.51	1.68	1.82
	40	35	40		1.64	1.81	1.98	2.12	1.37	1.55	1.70	1.83	1.05	1.18	1.31	1.40
	40	60	20		2.82	3.22	3.63	3.97	2.44	2.83	3.20	3.50	1.88	2.15	2.44	2.67
	40	60	40		2.13	2.41	2.70	2.94	1.81	2.08	2.33	2.54	1.40	1.59	1.79	1.96
LDT	20	10	20		1.61	1.62	1.71	1.79	1.45	1.53	1.63	1.71	1.27	1.44	1.55	1.63
	20	10	40		1.40	1.47	1.55	1.61	1.34	1.38	1.46	1.52	1.16	1.29	1.38	1.44
	20	35	20		2.49	2.66	2.95	3.19	2.27	2.56	2.84	3.08	2.04	2.48	2.77	3.00
	20	35	40		2.06	2.17	2.38	2.56	1.87	2.05	2.26	2.43	1.65	1.95	2.15	2.32
	20	60	20		3.37	3.71	4.19	4.59	3.09	3.60	4.06	4.45	2.81	3.52	3.98	4.37
	20	60	40		2.64	2.86	3.21	3.50	2.40	2.72	3.06	3.34	2.14	2.60	2.93	3.21
	40	10	20		1.63	1.64	1.73	1.82	1.47	1.55	1.65	1.73	1.29	1.46	1.57	1.65
	40	10	40		1.51	1.50	1.57	1.64	1.36	1.40	1.48	1.55	1.18	1.31	1.39	1.46
	40	35	20		2.51	2.69	2.97	3.21	2.29	2.58	2.87	3.10	2.06	2.50	2.79	3.02
	40	35	40		2.09	2.19	2.40	2.58	1.89	2.07	2.28	2.45	1.67	1.96	2.17	2.34
	40	60	20		3.40	3.74	4.21	4.61	3.11	3.62	4.08	4.47	2.83	3.54	4.00	4.39
	40	60	40		2.66	2.88	3.23	3.53	2.42	2.74	3.08	3.36	2.16	2.62	2.95	3.22
MC	20	10	20		.47	.82	.93	1.02	.38	.67	.73	.78	.30	.55	.58	.61
	20	10	40		.43	.74	.84	.92	.34	.60	.64	.68	.27	.48	.50	.52
	20	35	20		.79	1.37	1.57	1.73	.64	1.19	1.33	1.46	.52	.99	1.10	1.20
	20	35	40		.62	1.08	1.24	1.37	.50	.92	1.02	1.11	.40	.76	.83	.90
	20	60	20		1.10	1.92	2.20	2.43	.91	1.71	1.94	2.13	.73	1.44	1.63	1.78
	20	60	40		.82	1.43	1.64	1.81	.67	1.24	1.41	1.54	.53	1.04	1.17	1.27
	40	10	20		.48	.83	.94	1.03	.38	.68	.74	.79	.31	.56	.59	.61
	40	10	40		.43	.74	.84	.93	.34	.60	.65	.69	.27	.49	.51	.53
	40	35	20		.79	1.38	1.57	1.74	.65	1.20	1.34	1.46	.52	1.00	1.11	1.20
	40	35	40		.63	1.09	1.25	1.37	.51	.93	1.03	1.12	.41	.77	.84	.91
	40	60	20		1.10	1.93	2.21	2.44	.91	1.72	1.95	2.14	.74	1.45	1.64	1.79
	40	60	40		.92	1.44	1.65	1.82	.67	1.25	1.41	1.55	.54	1.05	1.17	1.28
HDG					1.72	5.81	5.52	6.38	1.73	5.55	5.63	6.57	1.73	5.24	5.78	6.92
HDD					.03	.63	.60	.62	.03	.60	.57	.57	.03	.60	.55	.54

EMISSION CORRECTION FACTORS FOR REGION: CALIFORNIA

M	H	C	T	YEAR: 1975 SPEED: 0	1978 15	1978 30	1978 45	1980 0	1980 15	1980 30	1980 45	1982 0	1982 15	1982 30	1982 45
LDV	20	10	20	1.10	1.09	1.13	1.16	.74	.83	.87	.89	.44	.61	.65	.67
	20	10	40	1.02	1.01	1.04	1.06	.70	.77	.80	.81	.41	.56	.60	.61
	20	35	20	1.69	1.78	1.96	2.10	1.13	1.38	1.53	1.64	.67	1.06	1.17	1.27
	20	35	40	1.43	1.49	1.63	1.73	.97	1.17	1.28	1.37	.58	.90	1.00	1.07
	20	60	20	2.27	2.47	2.79	3.03	1.52	1.94	2.19	2.39	.91	1.51	1.70	1.86
	20	60	40	1.84	1.98	2.22	2.41	1.24	1.58	1.77	1.93	.75	1.24	1.40	1.53
	40	10	20	1.12	1.11	1.15	1.18	.76	.85	.89	.91	.45	.63	.67	.69
	40	10	40	1.05	1.03	1.06	1.08	.71	.79	.82	.83	.42	.58	.62	.63
	40	35	20	1.71	1.80	1.98	2.12	1.14	1.40	1.55	1.66	.68	1.08	1.19	1.29
	40	35	40	1.45	1.52	1.65	1.76	.98	1.19	1.30	1.39	.59	.92	1.02	1.09
	40	60	20	2.29	2.50	2.80	3.05	1.53	1.96	2.21	2.41	.91	1.53	1.72	1.88
	40	60	40	1.86	2.00	2.24	2.43	1.26	1.60	1.79	1.95	.76	1.26	1.42	1.55
LDT	20	10	20	1.65	1.56	1.59	1.60	1.44	1.38	1.41	1.43	1.18	1.15	1.19	1.21
	20	10	40	1.53	1.44	1.45	1.45	1.33	1.27	1.29	1.30	1.10	1.07	1.10	1.11
	20	35	20	2.65	2.58	2.81	3.00	2.33	2.30	2.52	2.69	1.92	1.95	2.13	2.28
	20	35	40	2.22	2.15	2.32	2.45	1.97	1.94	2.11	2.23	1.65	1.67	1.82	1.93
	20	60	20	3.65	3.60	4.03	4.34	3.22	3.23	3.62	3.95	2.66	2.74	3.07	3.35
	20	60	40	2.90	2.86	3.19	3.45	2.61	2.61	2.92	3.16	2.21	2.26	2.53	2.75
	40	10	20	1.69	1.60	1.63	1.64	1.47	1.41	1.45	1.47	1.21	1.19	1.23	1.25
	40	10	40	1.57	1.47	1.48	1.48	1.37	1.30	1.33	1.34	1.14	1.11	1.14	1.15
	40	35	20	2.69	2.62	2.85	3.03	2.37	2.34	2.55	2.72	1.96	1.98	2.17	2.32
	40	35	40	2.25	2.19	2.35	2.48	2.01	1.98	2.14	2.27	1.69	1.70	1.85	1.97
	40	60	20	3.69	3.64	4.07	4.42	3.26	3.27	3.66	3.98	2.70	2.77	3.11	3.39
	40	60	40	2.94	2.90	3.22	3.49	2.65	2.65	2.95	3.20	2.24	2.30	2.56	2.78
MC	20	10	20	.66	.84	.95	1.05	.57	.69	.76	.82	.48	.57	.61	.65
	20	10	40	.60	.75	.86	.94	.50	.61	.67	.72	.42	.50	.53	.56
	20	35	20	1.11	1.40	1.60	1.77	1.01	1.23	1.38	1.51	.88	1.04	1.16	1.26
	20	35	40	.88	1.11	1.27	1.40	.78	.95	1.06	1.16	.67	.79	.88	.95
	20	60	20	1.56	1.97	2.25	2.49	1.45	1.76	2.00	2.21	1.28	1.51	1.71	1.87
	20	60	40	1.19	1.47	1.68	1.85	1.05	1.28	1.45	1.60	.92	1.08	1.22	1.34
	40	10	20	.67	.84	.96	1.06	.57	.70	.77	.82	.49	.57	.62	.65
	40	10	40	.60	.76	.87	.95	.51	.62	.68	.72	.43	.50	.54	.56
	40	35	20	1.12	1.41	1.61	1.78	1.01	1.23	1.39	1.52	.89	1.04	1.17	1.27
	40	35	40	.89	1.12	1.28	1.41	.78	.95	1.07	1.16	.68	.80	.88	.95
	40	60	20	1.57	1.98	2.26	2.50	1.45	1.77	2.01	2.21	1.29	1.51	1.71	1.88
	40	60	40	1.17	1.47	1.69	1.86	1.06	1.29	1.46	1.60	.93	1.09	1.23	1.35
HDG				1.44	5.42	5.78	7.05	1.33	5.13	5.91	7.30	1.25	4.90	6.02	7.53
HDD				.03	.63	.57	.58	.03	.61	.55	.54	.03	.60	.53	.52

EMISSION CORRECTION FACTORS FOR REGION: HIGH ALTITUDE

				YEAR:	1975	1978	1978	1978	1980	1980	1980	1980	1982	1982	1982	1982
				SPEED:	0	15	30	45	0	15	30	45	0	15	30	45
M	H	C	T													
LDV	20	10	20		1.04	1.77	2.18	2.49	.87	1.50	1.80	2.03	.67	1.09	1.29	1.43
	20	10	40		.95	1.57	1.96	2.25	.77	1.32	1.60	1.80	.59	.97	1.15	1.27
	20	35	20		1.93	3.08	3.64	4.08	1.61	2.69	3.14	3.50	1.26	1.96	2.27	2.52
	20	35	40		1.52	2.41	2.87	3.23	1.25	2.06	2.42	2.70	.98	1.52	1.76	1.95
	20	60	20		2.79	4.39	5.10	5.67	2.35	3.98	4.48	4.97	1.85	2.82	3.25	3.60
	20	60	40		2.09	3.25	3.78	4.22	1.73	2.90	3.25	3.61	1.37	2.07	2.36	2.64
	40	10	20		1.05	1.75	2.15	2.46	.87	1.49	1.79	2.01	.67	1.10	1.29	1.43
	40	10	40		.94	1.56	1.93	2.22	.77	1.31	1.59	1.79	.59	.97	1.15	1.27
	40	35	20		1.92	3.06	3.61	4.05	1.61	2.69	3.13	3.49	1.26	1.96	2.27	2.51
	40	35	40		1.51	2.39	2.85	3.20	1.25	2.06	2.41	2.69	.98	1.52	1.76	1.95
	40	60	20		2.78	4.38	5.07	5.64	2.35	3.98	4.47	4.96	1.85	2.83	3.25	3.60
	40	60	40		2.08	3.23	3.76	4.19	1.73	2.90	3.24	3.59	1.37	2.07	2.38	2.63
LDT	20	10	20		2.02	2.25	2.83	3.27	1.75	2.06	2.55	2.93	1.47	1.91	2.31	2.61
	20	10	40		1.81	2.04	2.58	3.00	1.58	1.85	2.31	2.66	1.32	1.69	2.06	2.34
	20	35	20		3.56	3.81	4.54	5.12	3.06	3.54	4.19	4.71	2.58	3.35	3.93	4.39
	20	35	40		2.85	3.06	3.69	4.18	2.45	2.81	3.35	3.78	2.05	2.60	3.07	3.43
	20	60	20		5.10	5.36	6.25	6.98	4.37	5.02	5.82	6.50	3.68	4.80	5.55	6.16
	20	60	40		3.88	4.09	4.79	5.36	3.33	3.76	4.39	4.90	2.78	3.51	4.07	4.53
	40	10	20		1.99	2.22	2.79	3.22	1.73	2.04	2.52	2.89	1.45	1.90	2.29	2.59
	40	10	40		1.78	2.01	2.54	2.96	1.56	1.83	2.28	2.62	1.30	1.68	2.05	2.32
	40	35	20		3.53	3.78	4.50	5.08	3.04	3.52	4.16	4.68	2.56	3.34	3.91	4.37
	40	35	40		2.82	3.04	3.65	4.14	2.43	2.79	3.32	3.75	2.03	2.59	3.05	3.41
	40	60	20		5.07	5.33	6.21	6.93	4.35	5.00	5.81	6.46	3.67	4.79	5.53	6.14
	40	60	40		3.85	4.06	4.75	5.32	3.31	3.74	4.36	4.87	2.76	3.50	4.06	4.51
MC	20	10	20		1.45	1.10	1.40	1.64	.89	.89	1.13	1.33	.58	.71	.91	1.06
	20	10	40		1.28	.98	1.27	1.50	.77	.78	1.01	1.20	.51	.62	.80	.95
	20	35	20		2.70	1.86	2.24	2.54	1.68	1.60	1.92	2.17	1.13	1.32	1.58	1.79
	20	35	40		2.10	1.47	1.78	2.04	1.29	1.23	1.49	1.70	.86	1.00	1.21	1.38
	20	60	20		3.95	2.63	3.07	3.44	2.48	2.31	2.70	3.02	1.68	1.93	2.25	2.51
	20	60	40		2.91	1.95	2.30	2.59	1.81	1.67	1.97	2.21	1.21	1.38	1.62	1.82
	40	10	20		1.44	1.09	1.38	1.63	.88	.88	1.12	1.31	.58	.70	.89	1.05
	40	10	40		1.27	.97	1.26	1.49	.77	.77	1.00	1.18	.50	.61	.79	.93
	40	35	20		2.69	1.85	2.22	2.53	1.67	1.59	1.90	2.16	1.13	1.31	1.56	1.77
	40	35	40		2.09	1.46	1.77	2.03	1.28	1.22	1.48	1.68	.85	.99	1.20	1.37
	40	60	20		3.94	2.62	3.06	3.43	2.47	2.30	2.68	3.00	1.68	1.92	2.23	2.49
	40	60	40		2.90	1.94	2.29	2.57	1.80	1.66	1.95	2.19	1.21	1.37	1.61	1.80
HDT					2.36	8.62	8.21	9.50	2.29	8.15	8.31	9.72	2.18	7.62	8.47	10.17
HDP					.09	1.01	.98	1.00	.08	.98	.92	.92	.07	.97	.88	.87

```
NORMAL EXIT.  EXECUTION TIME:        57793 MILLISECONDS.
 09:47:00   PTCORREV
 CRUP 00:00:00.385 DISC 00:00:00.485 TAPE 00:00:00.000 I/O  00:00:00.870
 CCER 00:00:00.585 CAU  00:00:31.050 MEMY 00:00:12.928-0056K

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APPENDIX C

SIGNAL*

SIGNAL was run with all the emission correction factors set equal to 1. Thus, the verification tables are for calendar year 1977 hot stabilized LDV. Note that the input values for IDL77 and IDLFTR were consequently identical.

The output of SIGNAL consists of two sections. The first is a queuing analysis which presents the results of equations 1 through 10 of Volume II. The second section presents the tables of emission rates.

*The sample executions contained herein are those that were used to generate the tables and screening curves in Volume I of the Hot Spot Guidelines.[1]

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C           DATA SET PTSIGNAL3  AT LEVEL 052 AS OF 07/20/78                MAI00010
C                                                                          MAI00020
C     ..................................................................   MAI00030
C                                                                          MAI00040
C     PROGRAM INTERSECTION                                                 MAI00050
C     VERSION 3.0 -- 1975 MODAL MODEL DATA WITH DETERIORATION TO 1977      MAI00060
C     SEPTEMBER 1977                                                       MAI00070
C                                                                          MAI00080
C                                                                          MAI00090
C     FRANK BENESH                                                         MAI00100
C     GCA/TECHNOLOGY DIVISION                                              MAI00110
C     BURLINGTON ROAD                                                      MAI00120
C     BEDFORD, MASS                                                        MAI00130
C     (617) 275-9000                                                       MAI00140
C                                                                          MAI00150
C     EQUATION NUMBERS IN COMMENTS REFER TO "GUIDELINES FOR                MAI00160
C     IDENTIFICATION AND EVALUATION OF LOCALIZED VIOLATIONS OF CARBON      MAI00170
C     MONOXIDE STANDARDS, VOLUME 2: RATIONALE", JULY 1977                  MAI00180
C                                                                          MAI00190
C     INPUT DATA REQUIRED:                                                 MAI00200
C        I5                                                                MAI00210
C             NUMBER OF PHASES (ASSUMED TO BE TWO)                         MAI00220
C          2F10.5                                                          MAI00230
C                IDL77 - SUP. & CO COMPOSITE IDLE EMISSION FACTOR 1977     MAI00240
C                IDLFTR - IDLE EMISSION FACTOR FOR DESIRED SCENARIO        MAI00250
C        4F10.0 - REPEAT 20 TIMES                                          MAI00260
C             DETERIORATION FACTORS FOR EACH MODAL MODEL MODEL YEAR         MAI00270
C        10X,4E15.8 -- REPEAT 3*4*18 TIMES                                 MAI00280
C             MODAL MODEL COEFFICIENTS                                     MAI00290
C        10F5.0 -- REPEAT TWICE                                            MAI00300
C             MODEL YEAR MIX                                               MAI00310
C            2F5.0,F10.5  REPEAT 2 TIMES FOR EACH TABLE DISIRED            MAI00320
C             INITIAL OR TERMINAL SPEED, DECELERATION OR ACCELERATION      MAI00330
C                AND EMISSION FACTOR RATIO FOR CRUISE SPEED                MAI00340
C                                                                          MAI00350
C                                                                          MAI00360
C     ..................................................................   MAI00370
C                                                                          MAI00380
      DIMENSION Q1(18,18),Q2(18,18),Q3(18,18),Q4(18,18),G1(18,18),         MAI00390
     1P1(18,18),C(18,18),CY1(18,18),D1(18,18),D2(18,18),D3(18,18),         MAI00400
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     2D4(18,18),IVEL(18)                                                    MAI00410
      DIMENSION QLENTH(18,18),EXCESS(18,18),CRUISE(18,18)                   MAI00420
      DIMENSION EQUEC(18,18)                                                MAI00430
C                                                                           MAI00440
C     READ NUMBER OF PHASES                                                 MAI00450
C                                                                           MAI00460
      READ(5,59) NPHASE                                                     MAI00470
   59 FORMAT(I5)                                                            MAI00480
C                                                                           MAI00490
C                                                                           MAI00500
C     INITIALIZE VARIABLES                                                  MAI00510
C                                                                           MAI00520
C                                                                           MAI00530
      DO 1 I=1,14                                                           MAI00540
      DO 2 J=1,14                                                           MAI00550
      D1(I,J)=0.                                                            MAI00560
      D2(I,J)=0.                                                            MAI00570
      D3(I,J)=0.                                                            MAI00580
      D4(I,J)=0.                                                            MAI00590
      CY1(I,J)=0.                                                           MAI00600
      G1(I,J)=0.                                                            MAI00610
      P1(I,J)=0.                                                            MAI00620
      C(I,J)=0.                                                             MAI00630
      Q1(I,J)=0.                                                            MAI00640
      Q2(I,J)=0.                                                            MAI00650
      Q3(I,J)=0.                                                            MAI00660
      Q4(I,J)=0.                                                            MAI00670
      CRUISE(I,J)=0.0                                                       MAI00680
      EQUEC(I,J)=0.0                                                        MAI00690
    2 EXCESS(I,J)=0.                                                        MAI00700
    1 CONTINUE                                                              MAI00710
C                                                                           MAI00720
C     ..................................................................    MAI00730
C     PERFORM QUEUING ANALYSIS OF INTERSECTIONS                             MAI00740
C     ..................................................................    MAI00750
C                                                                           MAI00760
      DO 3 J=1,14                                                           MAI00770
      DO 4 I=1,14                                                           MAI00780
C                                                                           MAI00790
C                                                                           MAI00800
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C                                                                       MAI00810
C                                                                       MAI00820
C     CALCULATE LENGTH OF SIGNAL CYCLE (EQ.5)                           MAI00830
C                                                                       MAI00840
C                                                                       MAI00850
      C1=1800.                                                          MAI00860
      C2=1800.                                                          MAI00870
      V2=FLOAT(J)*100.                                                  MAI00880
      V1=FLOAT(I)*100.                                                  MAI00890
      SKIP1=1.-(V1/C1+V2/C2)                                            MAI00900
      IF(SKIP1.LE..0001) GO TO 4                                        MAI00910
      CY=(9.0*NPHASE+5.0)/SKIP1                                         MAI00920
C                                                                       MAI00930
C                                                                       MAI00940
C     CALCULATE GREEN PHASE LENGTH (EQ.6)                               MAI00950
C                                                                       MAI00960
C                                                                       MAI00970
      G=CY*(V1/(V1+V2))-3.0                                             MAI00980
C                                                                       MAI00990
C                                                                       MAI01000
C     CALCULATE PROPORTION OF VEHICLES THAT STOP (EQ.1)                 MAI01010
C                                                                       MAI01020
C                                                                       MAI01030
      P=(1-G/CY)/(1.-V1/C1)                                             MAI01040
      CY1(I,J)=CY                                                       MAI01050
      G1(I,J)=G                                                         MAI01060
      P1(I,J)=P                                                         MAI01070
C                                                                       MAI01080
C                                                                       MAI01090
C     CALCULATE THE APPROACH CAPACITY (EQ.7)                            MAI01100
C                                                                       MAI01110
C                                                                       MAI01120
      C3=C1*G/CY                                                        MAI01130
      C(I,J)=C3                                                         MAI01140
C                                                                       MAI01150
C                                                                       MAI01160
C     CALCULATE QUEUE LENGTH (EQ.2)                                     MAI01170
C        Q1 = FIRST TERM QUEUE LENGTH                                   MAI01180
C        Q2 = SECOND TERM QUEUE LENGTH                                  MAI01190
C        Q3 = TOTAL QUEUE LENETH                                        MAI01200
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C         Q4 = PROPORTION OF VEHICLES IN RESIDUE QUEUE                    MAI01210
C                                                                         MAI01220
C                                                                         MAI01230
      Q1(I,J)=P*V1*CY/3600.                                               MAI01240
      Q2(I,J)=V1/(C3-V1)                                                  MAI01250
      Q3(I,J)=Q1(I,J)+Q2(I,J)                                             MAI01260
      Q4(I,J)=Q2(I,J)/Q3(I,J)                                             MAI01270
C                                                                         MAI01280
C                                                                         MAI01290
C     CALCULATE THE IDLE DELAY TIME (EQ.4)                                MAI01300
C        D1 = DELAY FROM FIRST TERM                                       MAI01310
C        D2 = DELAY FROM SECOND TERM                                      MAI01320
C        D3 = TOTAL DELAY TIME                                            MAI01330
C        D4 = PROPORTION OF DELAY TIME FROM RESIDUE QUEUE                 MAI01340
C                                                                         MAI01350
C                                                                         MAI01360
      D1(I,J)=0.5*P*(CY-G)                                                MAI01370
      D2(I,J)=3600.*V1/(C3*(C3-V1))                                       MAI01380
      D3(I,J)=D1(I,J)+D2(I,J)                                             MAI01390
      D4(I,J)=D2(I,J)/D3(I,J)                                             MAI01400
    4 CONTINUE                                                            MAI01410
    3 CONTINUE                                                            MAI01420
C                                                                         MAI01430
C                                                                         MAI01440
C     WRITE QUEUING ANALYSIS OF INTERSECTIONS BY VOLUME                   MAI01450
C                                                                         MAI01460
C                                                                         MAI01470
      WRITE(6,500)                                                        MAI01480
      CALL TRFOUT(Q1)                                                     MAI01490
      WRITE(6,600)                                                        MAI01500
      CALL TRFOUT(Q2)                                                     MAI01510
      WRITE(6,700)                                                        MAI01520
      CALL TRFOUT(Q3)                                                     MAI01530
      WRITE(6,800)                                                        MAI01540
      CALL TRFOUT(Q4)                                                     MAI01550
      WRITE(6,900)                                                        MAI01560
      CALL TRFOUT(D1)                                                     MAI01570
      WRITE(6,1000)                                                       MAI01580
      CALL TRFOUT(D2)                                                     MAI01590
      WRITE(6,1100)                                                       MAI01600
```

```
      CALL TRFOUT(D3)                                                    MAI01610
      WRITE(6,1200)                                                      MAI01620
      CALL TRFOUT(D4)                                                    MAI01630
      WRITE(6,1300)                                                      MAI01640
      CALL TRFOUT(CY1)                                                   MAI01650
      WRITE(6,1400)                                                      MAI01660
      CALL TRFOUT(G1)                                                    MAI01670
      WRITE(6,1500)                                                      MAI01680
      CALL TRFOUT(P1)                                                    MAI01690
      WRITE(6,1600)                                                      MAI01700
      CALL TRFOUT(C)                                                     MAI01710
 100  FORMAT(1H1)                                                        MAI01720
 200  FORMAT(1HO,F4.2,1X,'+',14(F7.2,1X))                                MAI01730
 400  FORMAT(1HO,10X,'+',13(7X,'+'),//,9X,14(F4.2,5X))                   MAI01740
 401  FORMAT(1HO,10X,'+',13(7X,'+'),//,9X,'  100     200     300     ',MAI01750
     1'400     500     600     700     800     900     1000    ',      MAI01760
     2'1100    1200    1300    1400')                                   MAI01770
C 300  FORMAT(1HO,7X,14(F4.2,5X))                                       MAI01780
 500  FORMAT(1H1,'QUEUE LENGTH FROM FIRST TERM')                         MAI01790
 600  FORMAT(1H1,'QUEUE LENGTH FROM SECOND TERM')                        MAI01800
 700  FORMAT(1H1,'TOTAL QUEUE LENGTH')                                   MAI01810
 800  FORMAT(1H1,'RATIO OF SECOND TERM TO TOTAL QUEUE')                  MAI01820
 900  FORMAT(1H1,'DELAY FROM FIRST TERM')                                MAI01830
1000  FORMAT(1H1,'DELAY FROM SECOND TERM')                               MAI01840
1100  FORMAT(1H1,'TOTAL DELAY')                                          MAI01850
1200  FORMAT(1H1,'RATIO OF SECOND TERM TO TOTAL DELAY')                  MAI01860
1300  FORMAT(1H1,'CYCLE LENGTH')                                         MAI01870
1400  FORMAT(1H1,'LENGTH OF GREEN PHASE')                                MAI01880
1500  FORMAT(1H1,'PROPORTION THAT STOP (FOR FIRST TERM)')                MAI01890
1600  FORMAT(1H1,'CAPACITY UNDER SIGNALIZATION')                         MAI01900
 999  CONTINUE                                                           MAI01910
C                                                                       MAI01920
C     ..................................................                MAI01930
C     PREPARE EXCESS EMISSIONS AND QUEUE LENGTH TABLES BY VEHICLE SPEED MAI01940
C     ..................................................                MAI01950
C                                                                       MAI01960
C     SUBROUTINE EMIS RETURNS 99 AS NEXT STATEMENT ON EOF ON UNIT 5,    MAI01970
C     INDICATING THE LAST SPEED-ACCEL. PAIR HAS BEEN READ AND PROCESSED MAI01980
C                                                                       MAI01990
C                                                                       MAI02000
C
C
```

```
      ITIME=0                                                          MAI02010
   20 CALL EMIS(EMQ,EMQC,EMI,EMC,V,ITIME,899)                          MAI02020
      ITIME=ITIME+1                                                    MAI02030
      DO 21 I=1,14                                                     MAI02040
      DO 22 J=1,14                                                     MAI02050
C                                                                      MAI02060
C                                                                      MAI02070
C     COMPUTE QUEUE LENGTH IN METERS                                   MAI02080
C                                                                      MAI02090
C                                                                      MAI02100
      QLENTH(I,J)=Q3(I,J)*8.0                                          MAI02110
      IF(QLENTH(I,J).LT.40.0) QLENTH(I,J)=40.0                         MAI02120
      IF(CY1(I,J).LE.0.0) GO TO 22                                     MAI02130
C                                                                      MAI02140
C                                                                      MAI02150
C     COMPUTE EXCESS EMISSIONS                                         MAI02160
C                                                                      MAI02170
C                                                                      MAI02180
      EQUE=(EMQ+EMQC)*Q1(I,J)/CY1(I,J)                                 MAI02190
      EQUEC(I,J)=EMQC*Q1(I,J)/CY1(I,J)/QLENTH(I,J)                     MAI02200
      EI=EMI*D3(I,J)*I*100./3600.                                      MAI02210
      EXCESS(I,J)=(EQUE+EI)/QLENTH(I,J)                                MAI02220
      IF(EQUE.LE.0..OR.EI.LE.0.) EXCESS(I,J)=0.                        MAI02230
      IF(EQUE.LE.0..OR.EI.LE.0.) EQUEC(I,J)=0.                         MAI02240
      IF(EQUE.LE.0..OR.EI.LE.0.) QLENTH(I,J)=0.                        MAI02250
   22 CONTINUE                                                         MAI02260
C                                                                      MAI02270
C     CALCULATE THE CRUISE EMISSIONS AND SAVE FOR PRINTING LATER.      MAI02280
C                                                                      MAI02290
      CRUISE(ITIME,I)=(EMC*I*100./3600.)/(V*1609.344/3600.)            MAI02300
   21 CONTINUE                                                         MAI02310
      IVEL(ITIME)=V                                                    MAI02320
C                                                                      MAI02330
C                                                                      MAI02340
C     WRITE OUT EXCESS EMISSIONS AND QUELE LENGTHS                     MAI02350
C                                                                      MAI02360
C                                                                      MAI02370
      WRITE(6,1700) V                                                  MAI02380
      DO 17 J=1,14                                                     MAI02390
      M=14-J+1                                                         MAI02400
```

```
      N=M*100                                                          MAI02410
      WRITE(6,201) N,(EXCESS(I,M),I=1,14)                              MAI02420
      WRITE(6,203)(EQUEC(I,M),I=1,14)                                  MAI02430
   17 WRITE(6,202) (GLENTH(I,M),I=1,14)                                MAI02440
      WRITE(6,401)                                                     MAI02450
  201 FORMAT(1HO,I4,1X,'+',14(F7.5,1X))                                MAI02460
  170 FORMAT(1H1,'EXCESS EMISSIONS, GRAMS/METER*SECOND, AND QUEUE LENGTHMAI02470
     1.  THE CRUISE SPEED IS ',F3.0,' MPH.')                           MAI02480
  202 FORMAT(1H ,5X,14(F7.1,1X))                                       MAI02490
  203 FORMAT(1X,5X,14(F7.5,1X))                                        MAI02500
      GO TO 20                                                         MAI02510
   50 CONTINUE                                                         MAI02520
C                                                                      MAI02530
C                                                                      MAI02540
C     WRITE OUT CRUISE EMISSIONS                                       MAI02550
C                                                                      MAI02560
C                                                                      MAI02570
      WRITE(6,1900)                                                    MAI02580
      DO 199 L=1,ITIME                                                 MAI02590
  199 WRITE(6,201)IVEL(L),(CRUISE(L,L3),L3=1,14)                       MAI02600
      WRITE(6,401)                                                     MAI02610
 1900 FORMAT(1H1,' CRUISE EMISSIONS, GRAMS PER METER-SECOND')          MAI02620
      STOP                                                             MAI02630
      END                                                              MAI02640
```

```
      SUBROUTINE EMIS(EMQ,EMQC,EMI,EMC,V,ITIME,*)                       EMI00010
C                                                                       EMI00020
C     ..................................................................EMI00030
C                                                                       EMI00040
C     SUBROUTINE EMISSIONS DETERMINATION                                EMI00050
C                                                                       EMI00060
C                                                                       EMI00070
C     INPUT VARIABLES:                                                  EMI00080
C        ITIME, COUNTER                                                 EMI00090
C                                                                       EMI00100
C                                                                       EMI00110
C     OUTPUT VARIABLES:                                                 EMI00120
C        EMQ, EXCESS QUEUE EMISSIONS FROM ACCELERATION AND DECELERATION EMI00130
C                                  (GRAMS CO PER VEHICLE)               EMI00140
C        EMQC, CRUISE COMPONENT OF QUEUE EMISSIONS (G/VEH)              EMI00150
C        EMI, IDLE EMISSIONS (GRAMS CO PER VEHICLE - SECOND)            EMI00160
C        EMC, CRUISE EMISSIONS OVER ACCELERATION AND DECELERATION TIME  EMI00170
C                                  (GRAMS CO PER VEHICLE)               EMI00180
C        V, APPROACH OR DEPARTURE SPEED (MILES PER HOUR)                EMI00190
C                                                                       EMI00200
C                                                                       EMI00210
C                                                                       EMI00220
C     IN THE FIRST EXECUTION OF THE SUBROUTINE, INPUT DATA ARE READ:    EMI00230
C        IDL77, BASE YEAR STABILIZED IDLE EMISSION FACTOR               EMI00240
C        IDLFTR, IDLE EMISSION FACTOR FOR THE DESIRED SCENARIO          EMI00250
C        DETER, TOTAL DETERIORATION OF MODAL MODEL COEFFICIENTS         EMI00260
C        COEF, MODAL COEFICENTS                                         EMI00270
C        DEC, MODEL YEAR MIX                                            EMI00280
C        V, INITIAL OR TERMINAL VELOCITY.                               EMI00290
C        A, ACCELERATION OR DECELERATION                                EMI00300
C                                                                       EMI00310
C     THE SUBROUTINE THEN CALCULATES AND PRINTS THE ACELERATION OR      EMI00320
C     DECELERATION, CRUISE, EXCESS ACEL. OR DECEL. AND IDLE EMISSIONS   EMI00330
C     FOR EACH POLLUTANT AND VELOCITY - ACELERATION PAIR.  THERE ARE    EMI00340
C     TWO VELOCITY - ACELERATION PAIRS FOR EACH INTERSECTION.           EMI00350
C     SUBROUTINE ESUM IS CALLED.                                        EMI00360
C                                                                       EMI00370
C     ..................................................................EMI00380
C                                                                       EMI00390
      REAL*8 COEF(20,4,12),POLUT(8)/' HYDROCA','RBONS  ',' CARBON ',    EMI00400
```

```
     *'MONOXIDE',' CARBON ','DIOXIDE ',' NITROGE','N OXIDES'/,          EMI00410
     &DETER(20,4),DEC(20),EMAD(4),EMCRUZ(4),EMIDLE(4),ACC,VEL,T         EMI00420
      REAL IDLFTR,IDL77                                                 EMI00430
      EMQC=0.0                                                          EMI00440
      EMQ=0.                                                            EMI00450
      EMI=0.                                                            EMI00460
      EMC=0.                                                            EMI00470
      IF(ITIME.NE.0) GO TO 1                                            EMI00480
C                                                                       EMI00490
C     READ INPUT DATA IF FIRST TIME THROUGH (WHEN ITIME EQUALS ZERO)    EMI00500
C                                                                       EMI00510
C                                                                       EMI00520
C     READ AND PRINT THE CO IDLE EMISSION FACTORS                       EMI00530
C                                                                       EMI00540
C                                                                       EMI00550
      READ (5,255) IDL77,IDLFTR                                         EMI00560
  255 FORMAT (2F10.0)                                                   EMI00570
      RATIO=IDLFTR/IDL77                                                EMI00580
      WRITE (6,256) IDL77,IDLFTR,RATIO                                  EMI00590
  256 FORMAT ('1',3F10.5)                                               EMI00600
C                                                                       EMI00610
C                                                                       EMI00620
C     SECOND, READ 20 DETERIORATION FACTORS FOR EACH POLLUTANT          EMI00630
C                                                                       EMI00640
      DO 301 I1=1,20                                                    EMI00650
      READ(5,300)(DETER(I1,IC),IC=1,4)                                  EMI00660
  300 FORMAT(4F10.0)                                                    EMI00670
  301 CONTINUE                                                          EMI00680
C                                                                       EMI00690
      WRITE (6,306)                                                     EMI00700
  306 FORMAT('1DETERIORATION FACTORS, MODEL YEAR (DOWN) BY POLLUTANT (ACEMI00710
     *CROSS)'//)                                                        EMI00720
      WRITE(6,307)((DETER(I1,IC),IC=1,4),I1=1,20)                       EMI00730
  307 FORMAT(20(1X,4F15.5/))                                            EMI00740
C                                                                       EMI00750
C     NOW READ THE MODAL MODEL COEFFICIENTS FOR 18 MODEL YEARS          EMI00760
C                                                                       EMI00770
      DO 320 I1=1,18                                                    EMI00780
      DO 320 IC=1,4                                                     EMI00790
      DO 320 IM=1,7                                                     EMI00800
```

```
      IEL=(IM-1)*4+1                                                    EMI00810
      IEH=(IM-1)*4+4                                                    EMI00820
      READ(5,315)((COEF(I1,IC,IE),IE=IEL,IEH)                          EMI00830
  315 FORMAT(10X,4E15.8)                                                EMI00840
  320 CONTINUE                                                          EMI0085
C                                                                       EMI0086
C     ASSUME THE 1977 IN 1977 AND THE 1976 IN 1976 MODAL COEFFICIENTS   EMI0087
C     TO BE THE SAME AS THE 1975 COEFFICIENTS IN 1975                   EMI00880
C                                                                       EMI00890
      DO 325 IC=1,4                                                     EMI00900
      DO 325 IE=1,12                                                    EMI00910
      DO 325 I1=19,20                                                   EMI00920
      COEF(I1,IC,IE)=COEF(18,IC,IE)                                     EMI00930
  325 CONTINUE                                                          EMI00940
C                                                                       EMI00950
      WRITE (6,326)                                                     EMI00960
  326 FORMAT('1MODAL MODEL COEFFICIENTS FOR CO - AS INPUT')             EMI00970
      WRITE (6,327)((COEF(I1,2,IE),IE=1,12),I1=1,20)                    EMI00980
  327 FORMAT(240(1X,4E15.8/))                                           EMI0099
C                                                                       EMI0099
C     DETERIORATE 1975 COEFFICIENTS TO 1977                             EMI01000
C                                                                       EMI01010
      DO 330 IC=1,4                                                     EMI01020
      DO 330 IE=1,12                                                    EMI01030
      DO 330 I1=1,20                                                    EMI01040
      COEF(I1,IC,IE)=COEF(I1,IC,IE)*DETER(I1,IC)                        EMI01050
  330 CONTINUE                                                          EMI01060
      WRITE (6,328)                                                     EMI01070
  328 FORMAT('1 MODAL MODEL COEFFICIENTS FOR CO - AFTER APPLICATION OF  EMI01080
     &DETERORIATION')                                                   EMI01090
      WRITE (6,327)((COEF(I1,2,IE),IE=1,12),I1=1,20)                    EMI01100
C                                                                       EMI01110
C     READ DEC, THE MODEL YEAR MIX                                      EMI01120
C                                                                       EMI01130
      READ(5,103)(DEC(KK),KK=1,20)                                      EMI01140
  103 FORMAT(10F5.0/10F5.0)                                             EMI01150
C                                                                       EMI01160
      WRITE (6,104)(DEC(KK),KK=1,20)                                    EMI01170
  104 FORMAT('1MODEL YEAR MIX'//20(1X,F15.8/))                          EMI01180
C                                                                       EMI01190
                                                                        EMI01200
```

```
C     READ A VELOCITY - ACCELERATION PAIR, CALL ESUM, AND PRINT          EMI01210
C     EMISSIONS.  THIS IS DONE TWICE EACH TIME SUBROUTINE EMIS IS        EMI01220
C     CALLED - THAT IS TWICE FOR EACH INTERSECTION.                      EMI01230
C                                                                        EMI01240
C                                                                        EMI01250
    1 DO 100 INX=1,2                                                     EMI01260
      READ(5,488,END=999) V,A,FACTOR                                     EMI01270
  488 FORMAT(F5.2,F5.2,F10.0)                                            EMI01280
      VEL=DBLE(V)                                                        EMI01290
      ACC=DBLE(A)                                                        EMI01300
      CALL ESUM(VEL,ACC,COEF,EMAD,EMCRUZ,DEC,T,EMIDLE)                   EMI01310
      T1=SNGL(T)                                                         EMI01320
      IPAGE=2-INX                                                        EMI01330
      WRITE(6,503) IPAGE,V,A                                             EMI01340
  503 FORMAT(I1,'LDV STABILIZED EMISSION RATES: SPEED=',F5.2,10X,'ACCELE EMI01350
     &RATION=',F5.2)                                                     EMI01360
      DO 13 I=1,4                                                        EMI01370
      E1=SNGL(EMCRUZ(I))*T1/2.0                                          EMI01380
      E2=SNGL(EMAD(I))-E1                                                EMI01390
      E3=SNGL(EMIDLE(I))                                                 EMI01400
   13 WRITE(6,504) POLUT(2*I-1),POLUT(2*I),EMAD(I),E1,E2,E3              EMI01410
  504 FORMAT (2A8,4(F10.5,10X))                                          EMI01420
      WRITE(6,505)                                                       EMI01430
  505 FORMAT('1H0,15X,'ACEL/DECEL',10X,'  CRUISE  ',10X,'EXCESS A/D',10X, EMI01440
     *'   IDLE'/16X,'   G/VEH   ',3(10X,' G/VEH/SEC'))                   EMI01450
      E1=SNGL(EMCRUZ(2))*T1*FACTOR/2.0                                   EMI01460
      E2=SNGL(EMAD(2))*RATIO-E1                                          EMI01470
      E3=SNGL(EMIDLE(2))*RATIO                                           EMI01480
      EMQ=EMQ+E2                                                         EMI01490
      EMQC=EMQC+E1                                                       EMI01500
      EMI=E3                                                             EMI01510
      EMC=SNGL(EMCRUZ(2))*FACTOR                                         EMI01520
  100 CONTINUE                                                           EMI01530
C                                                                        EMI01540
      EMI8=IDLFTR                                                        EMI01550
      WRITE (6,700) EMQ,EMC,EMI,EMI8                                     EMI01560
  700 FORMAT (////' TOTAL CO EMISSION RATES FOR DESIRED SCENARIO'/'CEXCEEMI01570
     &SS EMISSIONS    =',F8.5,' G/VEH'/' CRUISE EMISSIONS    =',F8.5,' G/VEMI01580
     &EH SEC'/' MM IDLE EMISSIONS  =',F8.5,' G/VEH SEC'/' SUPR IDLE EMISEMI01590
     &SIONS=',F8.5,' G/VEH SEC'///)                                      EMI01600
      EMI=EMI8
```

```
C
      RETURN                                                    EMI01610
      RETURN                                                    EMI01620
  999 CONTINUE                                                  EMI01630
      RETURN 7                                                  EMI01640
      END                                                       EMI01650
```

```
      SUBROUTINE ESUM(V,A,BAD,EMAD,EMCRUZ,DEC,T,EMIDLE)
C
C     ..................................................................
C
C     SUBROUTINE EMISSIONS CALCULATION AND SUMMATION OVER MODEL YEAR
C
C     INPUT VARIABLES:
C        V, VELOCITY (MILES PER HOUR)
C        A, ACCELERATION (MILES PER HOUR PER SECOND)
C        BAD, MODAL COEFFICIENTS - MODEL YEAR BY POLLUTANT BY TERM
C        DEC, MODEL YEAR MIX
C
C     OUTPUT VARIABLES:
C        EMAD, ACCELERATION OR DECELERATION EMISSIONS (G/VEH)
C        EMCRUZ, CRUISE EMISSIONS (GRAM PER VEHICLE PER SECOND)
C        T1, TIME FOR ACCELERATION OR DECELERATION (SECONDS)
C        EMIDLE, IDLE EMISSIONS (GRAMS/VEHICLE/SECOND)
C
C     THE SUBROUTINE CALCULATES ACELERATION OR DECELERATION EMISSIONS,
C     CRUISE EMISSIONS, AND IDLE EMISSIONS.  THE ACELERATION OR DECEL-
C     ERATION EMISSIONS ARE CALCULATED FROM AN INTEGRATION OVER TIME OF
C     THE MODAL MODEL EQUATION FOR INSTANTANEOUS EMISSIONS, ASSUMING A
C     CONSTANT ACELERATION OR DECELERATION (INPUT) FROM OR TO THE
C     INITIAL OR TERMINAL VELOCITY (INPUT).  CRUISE EMISSIONS ARE
C     CALCULATED FOR THE INITIAL OR TERMINAL VELOCITY.
C
C     ..................................................................
C
      REAL*8 BAD(20,4,12),X(12),XC(3),AMIN,AMAX,A1,A2,HOA,SOA,V,A,T,
     &EMAD(4),EMCRUZ(4),DEC(20),EMIDLE(4)
C
C     INITIALIZE VARIABLES
C
      AMAX=1.0D0
      AMIN=-1.2D0
      A1=-1.0D0/AMIN
      A2=-1.0D0/AMAX
      DO 3001 IC=1,4
      EMAD(IC)=0.0D0
```

```
      EMIDLE(IC)=0.0D0                                                  ESU00410
  30(1 EMCRUZ(IC)=0.0D0                                                 ESU00420
C                                                                       ESU00430
C     SET UP MODAL MODEL VARIABLES                                      ESU00440
C                                                                       ESU00450
      T=DABS(V/A)                                                       ESU00460
      X(1)=T                                                            ESU00470
      X(2)=A*T*T/2.0D0                                                  ESU00480
      X(3)=A*T                                                          ESU00490
      X(4)=(A**2)*(T**2)/2.0D0                                          ESU00500
      X(5)=(A**2)*(T**3)/3.0D0                                          ESU00510
      X(6)=(A**2)*T                                                     ESU00520
      X(8)=(A**3)*(T**3)/3.0D0                                          ESU00530
      X(7)=(A**3)*(T**2)/2.0D0                                          ESU00540
      X(9)=(A**4)*(T**3)/3.0D0                                          ESU00550
      X(10)=X(1)                                                        ESU00560
      X(11)=X(2)                                                        ESU00570
      X(12)=X(5)                                                        ESU00580
      XC(1)=1.0D0                                                       ESU00590
      XC(2)=V                                                           ESU00600
      XC(3)=V*V                                                         ESU00610
      IF(A.GE.AMAX) HOA=0.0D0                                           ESU00620
      IF(A.LE.AMIN) HOA=0.0D0                                           ESU00630
      IF(A.GE.0.0D0.AND.A.LT.AMAX) HOA=(A2*A)+1.0D0                     ESU00640
      IF(A.LE.0.0D0.AND.A.GT.AMIN) HOA=(A1*A)+1.0D0                     ESU00650
      SOA=1.0D0-HOA                                                     ESU00660
C                                                                       ESU00670
C     INTEGRATE MODEL MODEL EQUATION WITH CONSTANT ACCELERATION         ESU00680
C        LOOP TO 3551 OVER MODEL YEAR                                   ESU00690
C        LOOP TO 2999 OVER POLLUTANT SPECIES                            ESU00700
C        LOOP TO 2998 OVER MODAL MODEL TERM AND COMPUTE IDLE EMISSIONS  ESU00710
C                                                                       ESU00720
      DO 3551 I1=1,20                                                   ESU00730
      IF(DEC(I1).EQ.0.0) GO TO 3551                                     ESU00740
      DO 2999 IC=1,4                                                    ESU00750
      DO 3000 IE=1,12                                                   ESU00760
      IF(IE.GT.9) GO TO 2997                                            ESU00770
      IF(A.LT.0.0D0.AND.IE.EQ.2) GO TO 2996                             ESU00780
      IF(A.LT.0.0D0.AND.IE.EQ.4) GO TO 2996                             ESU00790
      IF(A.LT.0.0D0.AND.IE.EQ.7) GO TO 2996                             ESU00800
```

```
      EMAD(IC)=EMAD(IC)+X(IE)*SOA*BAD(I1,IC,IE)*DEC(I1)                 ESU00810
      GO TO 2998                                                        ESU00820
 2956 EMAD(IC)=EMAD(IC)-X(IE)*SOA*BAD(I1,IC,IE)*DEC(I1)                 ESU00830
      GO TO 2998                                                        ESU00840
 2957 CONTINUE                                                          ESU00850
      EMCRUZ(IC)=EMCRUZ(IC)+XC(IE-9)*BAD(I1,IC,IE)*DEC(I1)              ESU00860
      IF(A.LT.0.0D0.AND.IE.EQ.11) GO TO 2995                            ESU00870
      EMAD(IC)=EMAD(IC)+X(IE)*BAD(I1,IC,IE)*DEC(I1)*HOA                 ESU00880
      GO TO 2998                                                        ESU00890
 2955 EMAD(IC)=EMAD(IC)-X(IE)*BAD(I1,IC,IE)*DEC(I1)*HOA                 ESU00900
 2958 CONTINUE                                                          ESU00910
 3000 CONTINUE                                                          ESU00920
      EMIDLE(IC)=EMIDLE(IC)+XC(1)*BAD(I1,IC,10)*DEC(I1)                 ESU00930
 2959 CONTINUE                                                          *ESU00940
 3551 CONTINUE                                                          ESU00950
      RETURN                                                            ESU00960
      END                                                               ESU00970
```

```
      SUBROUTINE TRFOUT(A)                                                    TRF00010
      DIMENSION A(18,19)                                                      TRF00020
      DO 1 J=1,14                                                             TRF00030
      M=14-J+1                                                                TRF00040
      N=M*100                                                                 TRF00050
    1 WRITE(6,10) N,(A(I,M),I=1,14)                                           TRF00060
      WRITE(6,11)                                                             TRF00070
   10 FORMAT(1HO,I4,1X,'+',14(F7.2,1X))                                       TRF00080
   11 FORMAT(1HO,10X,'+',13(7X,'+'),//,9X,' 100     200     300     ',       TRF00090
     1'400     500     600     700     800     900     1000    ',             TRF00100
     2'1100    1200    1300    1400')                                         TRF00110
      RETURN                                                                  TRF00120
      END                                                                     TRF00130
```

```
@FLT,L  PTSIGDATA
ELT007 SL73P1 07/20/79 19:30:41 (1.)
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000194  000  15  4 0.96731000E-03-0.52360000E-04-0.75958000E-03 0.11892000E-02
000195  000  15  4 0.24390000E-04-0.10261300E-02 0.33396000E-03 0.69431000E-03
000196  000  16  4-0.44900000E-05 0.19466300E-02-0.21615000E-03 0.60000000E-06
000197  000  16  1 0.44346620E-01-0.22166700E-02 0.68992000E-03 0.20510000E-04
000198  000  16  1 0.41330000E-04-0.53420900E-02 0.60573000E-03-0.19300000E-05
000199  000  16  1-0.96400000E-05 0.13101980E-01-0.24442000E-03 0.61700000E-05
000200  000  16  2 0.57665520E 00-0.36277410E-01 0.21571960E-01 0.29442400E-02
000201  000  16  2 0.63650000E-03-0.52853430E-01 0.69414500E-02-0.17560000E-04
000202  000  16  2-0.94470000E-04 0.25530096E 00-0.76948500E-02 0.13531000E-03
000203  000  16  3 0.26140094E 01-0.41381540E-01-0.23107350E-01 0.28863180E-01
000204  000  16  3 0.21597000E-02-0.25081254E 00 0.32850400E-01-0.49570000E-04
000205  000  16  3-0.49582000E-03 0.14941497E 01 0.19196120E-01 0.12189700E-02
000206  000  16  4 0.14261880E-01-0.72346000E-03-0.44333000E-03 0.32002000E-03
000207  000  16  4 0.40310000E-04-0.33075600E-02 0.45425000E-03 0.10400000E-05
000208  000  17  4-0.76300000E-05 0.34054600E-02-0.50338000E-03 0.38160000E-04
000209  000  17  1 0.26262620E-01-0.11058000E-02 0.13030300E-02 0.63370000E-04
000210  000  17  1 0.23860000E-04-0.18674700E-02 0.25699000E-03 0.33000000E-06
000211  000  17  1-0.31100000E-05 0.10452790E-01-0.19408000E-03 0.67500000E-05
000212  000  17  2 0.54005560E 00-0.39594090E-01 0.28321180E-01 0.14426300E-02
000213  000  17  2 0.70014000E-03-0.57096950E-01 0.73297800E-02 0.53550000E-04
000214  000  17  2-0.85800000E-04 0.20601981E 00-0.58017900E-02 0.85580000E-04
000215  000  17  3 0.29064552E 01-0.51300950E-01-0.94466300E-02 0.28370120E-01
000216  000  17  3 0.23778100E-02-0.25426778E 00 0.33705090E-01-0.59040000E-04
000217  000  17  3-0.51395000E-03 0.16673619E 01 0.15416130E-01 0.13155600E-02
000218  000  17  4 0.11976000E-01-0.72420000E-03-0.77164000E-03 0.27149000E-03
000219  000  17  4 0.32510000E-04-0.24936300E-02 0.34106000E-03 0.82000000E-06
000220  000  17  4-0.53900000E-05 0.29821600E-02-0.36151000E-03 0.24890000E-04
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000227      000      18    1 0.80684014E-02-0.40020002E-03 0.90040010E-03 0.65000000E-04
000228      000      18    1 0.66000002E-05-0.73569990E-03 0.89800000E-04-0.30000001E-06
000229      000      18    1-0.60000002E-06 0.53815991E-02-0.14550000E-03 0.19999998E-05
000230      000      18    2 0.21578521E+00-0.12577798E-01 0.51477298E-01-0.23425999E-02
000231      000      18    2 0.16780000E-03-0.15755999E-02 0.28229994E-03 0.12529999E-03
000232      000      18    2 0.48500006E-04 0.11655778E+00-0.46298988E-02 0.69899994E-04
000233      000      18    3 0.22840490E+01-0.26279900E-01 0.65590084E-01 0.53922199E-01
000234      000      18    3 0.21289000E-02-0.16557199E+00 0.30232102E-01-0.90100002E-04
000235      000      18    3-0.41270000E-03 0.14689569E+01 0.70669018E-02 0.16137001E-02
000236      000      18    4 0.10816600E-01-0.12250000E-02-0.73540001E-03 0.53939992E-03
000237      000      18    4 0.44400003E-04-0.32972000E-02 0.52660005E-03 0.31199997E-05
000238      000      18    4-0.84000003E-05 0.26507999E-02-0.35370002E-03 0.23400004E-04
000239      000     0.0 .071  0.0 .032 .047 .063 .079  0.0  0.0  0.0
000240      000     0.0  0.0  0.0  0.0  0.0 .094 .229 .130 .143 .112
000241      000    15.0-2.5         1.0
000242      000    15.0 2.5         1.0
000243      000    20.0-2.5         1.0
000244      000    20.0 2.5         1.0
000245      000    25.0-2.5         1.0
000246      000    25.0 2.5         1.0
000247      000    30.0-2.5         1.0
000248      000    30.0 2.5         1.0
000249      000    35.0-2.5         1.0
000250      000    35.0 2.5         1.0
000251      000    40.0-2.5         1.0
000252      000    40.0 2.5         1.0
000253      000    45.0-2.5         1.0
000254      000    45.0 2.5         1.0

END ELT.

$MARKPT PRINTS
```

STIME
TIME=2.00

JULY 24, 1979 15:03:27 19.626 SECONDS TOTAL 0 MINUTES ELAPSED TIME

CPU:	0.11%	I/O:	2.515
CC/ER:	16.992	WAIT:	0.000
AVG CORE:	6199		

$EXIT SIGREV

QUEUE LENGTH FROM FIRST TERM

1400 +	3.8	11.51	34.39	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	2.91	7.66	17.12	45.66	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	2.34	5.73	11.34	22.61	56.78	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	1.9?	4.57	8.43	14.89	27.94	67.72	.00	.00	.00	.00	.00	.00	.00	.00
1000 +	1.67	3.78	6.67	10.99	18.27	33.09	78.44	.00	.00	.00	.00	.00	.00	.00
900 +	1.46	3.21	5.47	8.62	13.37	21.45	38.00	88.87	.00	.00	.00	.00	.00	.00
800 +	1.2?	2.77	4.60	7.00	10.38	15.54	24.37	42.60	98.91	.00	.00	.00	.00	.00
700 +	1.1?	2.42	3.92	5.81	8.32	11.90	17.42	26.96	46.78	108.42	.00	.00	.00	.00
600 +	1.04	2.13	3.37	4.86	6.78	9.37	13.11	18.94	29.10	50.39	117.16	.00	.00	.00
500 +	.97	1.87	2.89	4.08	5.55	7.47	10.10	13.94	19.98	30.62	53.18	124.76	.00	.00
400 +	.84	1.62	2.45	3.39	4.51	5.93	7.80	10.40	14.24	20.36	31.27	54.75	130.54	.00
300 +	.74	1.38	2.02	2.79	3.56	4.58	5.89	7.65	10.13	13.82	19.78	30.60	54.36	133.10
200 +	.67	1.11	1.57	2.07	2.64	3.34	4.21	5.34	6.88	9.06	12.37	17.79	27.82	50.53
100 +	.47	.76	1.04	1.34	1.68	2.09	2.60	3.24	4.09	5.24	6.88	9.37	13.51	21.35
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

QUEUE LENGTH FROM SECOND TERM													
1400 +	-5.23	-114.00	65.17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	-4.24	270.00	26.29	38.15	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	-3.74	40.25	14.38	16.73	30.55	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	-3.56	17.09	8.94	9.79	13.73	26.97	.00	.00	.00	.00	.00	.00	.00
1000 +	-3.61	9.20	5.98	6.44	8.21	12.27	24.88	.00	.00	.00	.00	.00	.00
900 +	-4.11	5.56	4.18	4.51	5.51	7.42	11.40	23.52	.00	.00	.00	.00	.00
800 +	-5.75	3.59	3.01	3.29	3.93	5.03	6.94	10.82	22.56	.00	.00	.00	.00
700 +	-18.40	2.42	2.21	2.45	2.91	3.62	4.74	6.62	10.42	21.84	.00	.00	.00
600 +	7.32	1.67	1.64	1.85	2.20	2.71	3.43	4.54	6.39	10.11	21.29	.00	.00
500 +	2.30	1.17	1.23	1.42	1.69	2.07	2.58	3.30	4.39	6.22	9.87	20.85	.00
400 +	1.11	.82	.91	1.08	1.31	1.60	1.98	2.49	3.20	4.28	6.08	9.68	20.50
300 +	.60	.57	.68	.82	1.01	1.24	1.54	1.91	2.42	3.13	4.20	5.97	9.53
200 +	.33	.39	.49	.62	.78	.97	1.20	1.49	1.87	2.37	3.07	4.13	5.89
100 +	.17	.25	.35	.46	.59	.75	.94	1.17	1.46	1.83	2.33	3.03	4.07
	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300

TOTAL QUEUE LENGTH

1400 +	-1.35	-172.49	99.56	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	-1.32	217.64	43.40	83.80	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	-1.40	45.98	25.72	39.33	87.32	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	-1.59	21.65	17.38	24.67	41.68	94.69	.00	.00	.00	.00	.00	.00	.00	.00
1000 +	-1.96	12.98	12.65	17.43	26.48	45.36	103.32	.00	.00	.00	.00	.00	.00	.00
900 +	-2.65	8.77	9.66	13.13	18.89	28.87	49.40	112.39	.00	.00	.00	.00	.00	.00
800 +	-4.46	6.37	7.61	10.29	14.31	20.57	31.31	53.42	121.47	.00	.00	.00	.00	.00
700 +	-17.20	4.84	6.13	8.26	11.23	15.52	22.16	33.58	57.20	130.26	.00	.00	.00	.00
600 +	8.36	3.80	5.01	6.72	8.98	12.08	16.55	23.48	35.49	60.50	138.46	.00	.00	.00
500 +	3.23	3.06	4.11	5.49	7.24	9.54	12.68	17.24	24.37	36.84	63.06	145.62	.00	.00
400 +	1.94	2.45	3.37	4.47	5.82	7.52	9.77	12.89	17.44	24.64	37.35	64.43	151.03	.00
300 +	1.34	1.95	2.70	3.56	4.57	5.83	7.43	9.57	12.55	16.95	23.98	36.57	63.89	153.30
200 +	.96	1.50	2.07	2.69	3.42	4.31	5.41	6.83	8.75	11.43	15.44	21.91	33.71	59.93
100 +	.64	1.01	1.39	1.80	2.28	2.84	3.54	4.42	5.55	7.07	9.21	12.40	17.58	27.16
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

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RATIO OF SECOND TERM TO TOTAL QUEUE

1400 +	3.67	1.07	.65	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	3.21	.97	.61	.46	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	2.67	.88	.56	.43	.35	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	2.27	.79	.51	.40	.33	.28	.00	.00	.00	.00	.00	.00	.00	.00
1000 +	1.84	.71	.47	.37	.31	.27	.24	.00	.00	.00	.00	.00	.00	.00
900 +	1.55	.63	.43	.34	.29	.26	.23	.21	.00	.00	.00	.00	.00	.00
800 +	1.28	.56	.40	.32	.27	.24	.22	.20	.19	.00	.00	.00	.00	.00
700 +	1.07	.50	.36	.30	.26	.23	.21	.20	.18	.17	.00	.00	.00	.00
600 +	.91	.44	.33	.28	.25	.22	.21	.19	.18	.17	.15	.00	.00	.00
500 +	.71	.39	.30	.26	.23	.22	.20	.19	.18	.17	.16	.14	.00	.00
400 +	.57	.34	.27	.24	.22	.21	.20	.19	.18	.17	.16	.15	.14	.00
300 +	.45	.29	.25	.23	.22	.21	.21	.20	.19	.18	.18	.16	.15	.13
200 +	.34	.26	.24	.23	.23	.22	.22	.22	.21	.21	.20	.19	.17	.16
100 +	.27	.25	.25	.26	.26	.26	.27	.27	.26	.26	.25	.24	.23	.21
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

DELAY FROM FIRST TERM													
1400 +	86.64	92.13	171.46	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	50.24	61.27	84.94	158.60	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	40.34	45.71	55.51	77.77	145.76	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	33.67	36.26	41.22	50.58	70.62	132.93	.00	.00	.00	.00	.00	.00	.00
1000 +	28.85	29.64	32.23	36.76	45.28	63.49	120.11	.00	.00	.00	.00	.00	.00
900 +	25.14	25.12	26.07	28.25	32.34	40.01	56.38	107.31	.00	.00	.00	.00	.00
800 +	22.17	21.43	21.48	22.37	24.34	27.98	34.79	49.31	94.53	.00	.00	.00	.00
700 +	19.68	18.39	17.84	17.95	18.77	20.51	23.70	29.63	42.29	81.77	.00	.00	.00
600 +	17.49	15.75	14.78	14.40	14.55	15.29	16.79	19.50	24.55	35.33	69.06	.00	.00
500 +	15.47	13.35	12.08	11.40	11.15	11.32	11.95	13.20	15.43	19.57	28.46	56.40	.00
400 +	13.48	11.02	9.57	8.72	8.27	8.14	8.31	8.82	9.79	11.53	14.76	21.72	43.84	.00
300 +	11.35	8.63	7.13	6.25	5.74	5.48	5.43	5.57	5.94	6.64	7.88	10.18	15.20	31.44
200 +	8.78	6.02	4.67	3.92	3.48	3.23	3.11	3.10	3.20	3.43	3.85	4.58	5.97	9.06
100 +	5.20	3.03	2.19	1.77	1.54	1.40	1.32	1.29	1.29	1.33	1.43	1.59	1.88	2.43
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

DELAY FROM SECOND TERM													
1400	+-232.70	*******	770.18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300	+-199.65	4122.12	303.67	334.55	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200	+-183.70	706.94	161.28	142.05	212.97	.00	.00	.00	.00	.00	.00	.00	.00
1100	+-177.57	290.54	96.54	79.92	92.15	156.01	.00	.00	.00	.00	.00	.00	.00
1000	+-179.85	149.36	61.48	50.17	52.72	68.05	123.02	.00	.00	.00	.00	.00	.00
900	+-195.44	84.83	40.50	33.25	33.60	39.23	53.89	101.52	.00	.00	.00	.00	.00
800	+-250.56	50.61	27.13	22.67	22.59	25.18	31.19	44.59	86.40	.00	.00	.00	.00
700	+-700.47	30.64	18.27	15.66	15.60	17.04	20.11	25.87	38.01	75.19	.00	.00	.00
600	+ 251.79	18.84	12.25	10.85	10.91	11.85	13.66	16.72	22.10	33.12	66.56	.00	.00
500	+ 57.71	11.37	8.11	7.46	7.65	8.35	9.54	11.39	14.31	19.28	29.34	59.70	.00
400	+ 20.90	6.67	5.24	5.06	5.33	5.89	6.75	7.98	9.77	12.50	17.09	26.33	54.12
300	+ 8.04	3.73	3.28	3.35	3.66	4.13	4.79	5.66	6.85	8.54	11.09	15.35	23.88	49.49
200	+ 2.93	1.94	1.94	2.14	2.45	2.86	3.37	4.03	4.87	6.00	7.59	9.97	13.93	21.85
100	+ .88	.89	1.07	1.30	1.59	1.93	2.34	2.85	3.47	4.27	5.34	6.83	9.05	12.75
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

TOTAL DELAY

1400	+-166.06	*******	941.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300	+-149.41	4193.39	388.81	493.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200	+-143.36	752.65	217.19	219.83	358.72	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100	+-143.83	326.60	137.76	130.50	162.78	288.94	.00	.00	.00	.00	.00	.00	.00	.00
1000	+-151.04	179.20	93.71	86.93	98.00	131.54	243.13	.00	.00	.00	.00	.00	.00	.00
900	+-170.30	109.95	66.56	61.50	65.95	79.24	110.28	208.83	.00	.00	.00	.00	.00	.00
800	+-228.41	72.03	48.61	45.04	46.93	53.17	65.98	93.90	180.93	.00	.00	.00	.00	.00
700	+-690.79	49.23	36.11	33.61	34.37	37.55	43.80	55.50	80.30	156.97	.00	.00	.00	.00
600	+ 249.27	34.60	27.04	25.25	25.47	27.14	30.45	36.22	46.64	68.45	135.61	.00	.00	.00
500	+ 73.18	24.71	20.19	18.86	18.81	19.67	21.50	24.59	29.74	38.85	57.80	116.10	.00	.00
400	+ 34.38	17.69	14.62	13.79	13.60	14.03	15.06	16.80	19.56	24.03	31.85	48.05	97.95	.00
300	+ 19.39	12.37	10.41	9.60	9.40	9.61	10.21	11.23	12.80	15.18	18.97	25.53	39.09	80.93
200	+ 11.71	7.96	6.61	6.06	5.93	6.09	6.48	7.12	8.07	9.43	11.44	14.55	19.91	30.91
100	+ 6.00	3.92	3.26	3.07	3.12	3.33	3.66	4.13	4.76	5.61	6.77	8.42	10.93	15.18
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

RATIO OF SECOND TERM TO TOTAL DELAY

1400 +	1.40	1.07	.82	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	1.34	.99	.78	.68	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	1.28	.94	.74	.65	.59	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	1.23	.89	.70	.61	.57	.54	.00	.00	.00	.00	.00	.00	.00	.00
1000 +	1.19	.83	.66	.58	.54	.52	.51	.00	.00	.00	.00	.00	.00	.00
900 +	1.15	.77	.61	.54	.51	.50	.49	.49	.00	.00	.00	.00	.00	.00
800 +	1.10	.70	.56	.50	.48	.47	.47	.47	.48	.00	.00	.00	.00	.00
700 +	1.03	.63	.51	.47	.45	.45	.46	.47	.47	.48	.00	.00	.00	.00
600 +	.93	.54	.45	.43	.43	.44	.45	.46	.47	.48	.49	.00	.00	.00
500 +	.79	.46	.40	.40	.41	.42	.44	.46	.48	.50	.51	.51	.00	.00
400 +	.61	.38	.35	.37	.39	.42	.45	.48	.50	.52	.54	.55	.55	.00
300 +	.41	.30	.31	.35	.39	.43	.47	.50	.54	.56	.58	.60	.61	.61
200 +	.25	.24	.29	.35	.41	.47	.52	.56	.60	.64	.66	.69	.70	.71
100 +	.14	.23	.33	.42	.51	.58	.64	.69	.73	.76	.79	.81	.83	.84
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

CYCLE LENGTH													
1400 + 138.00	207.00	414.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 + 103.50	138.00	207.00	414.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 + 82.80	103.50	138.00	207.00	414.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 + 69.00	82.80	103.50	138.00	207.00	414.00	.00	.00	.00	.00	.00	.00	.00	.00
1000 + 59.14	69.00	82.80	103.50	138.00	207.00	414.00	.00	.00	.00	.00	.00	.00	.00
900 + 51.75	59.14	69.00	82.80	103.50	138.00	207.00	414.00	.00	.00	.00	.00	.00	.00
800 + 46.00	51.75	59.14	69.00	82.80	103.50	138.00	207.00	414.00	.00	.00	.00	.00	.00
700 + 41.40	46.00	51.75	59.14	69.00	82.80	103.50	138.00	207.00	414.00	.00	.00	.00	.00
600 + 37.64	41.40	46.00	51.75	59.14	69.00	82.80	103.50	138.00	207.00	414.00	.00	.00	.00
500 + 34.50	37.64	41.40	46.00	51.75	59.14	69.00	82.80	103.50	138.00	207.00	414.00	.00	.00
400 + 31.85	34.50	37.64	41.40	46.00	51.75	59.14	69.00	82.80	103.50	138.00	207.00	414.00	.00
300 + 29.57	31.85	34.50	37.64	41.40	46.00	51.75	59.14	69.00	82.80	103.50	138.00	207.00	414.00
200 + 27.60	29.57	31.85	34.50	37.64	41.40	46.00	51.75	59.14	69.00	82.80	103.50	138.00	207.00
100 + 25.87	27.60	29.57	31.85	34.50	37.64	41.40	46.00	51.75	59.14	69.00	82.80	103.50	138.00
+	+	+	+	+	+	+	+	+	+	+	+	+	+
100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

LENGTH OF GREEN PHASE														
1400 +	6.20	22.87	70.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	4.39	15.40	35.81	94.41	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	3.37	11.79	24.60	48.75	118.76	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	2.75	9.74	19.18	33.80	61.69	143.12	.00	.00	.00	.00	.00	.00	.00	.00
1000 +	2.39	8.50	16.11	26.57	43.00	74.62	167.47	.00	.00	.00	.00	.00	.00	.00
900 +	2.17	7.75	14.25	22.48	33.96	52.20	87.56	191.82	.00	.00	.00	.00	.00	.00
800 +	2.11	7.35	13.13	20.00	28.85	41.36	61.40	100.50	216.18	.00	.00	.00	.00	.00
700 +	2.17	7.22	12.52	18.51	25.75	35.22	48.75	70.60	113.44	240.53	.00	.00	.00	.00
600 +	2.38	7.35	12.33	17.70	23.88	31.50	41.58	56.14	79.80	126.37	264.88	.00	.00	.00
500 +	2.75	7.75	12.52	17.44	22.87	29.26	37.25	47.95	63.54	89.00	139.31	289.24	.00	.00
400 +	3.37	8.50	13.13	17.70	22.56	28.05	34.64	43.00	54.32	70.93	98.20	152.25	313.59	.00
300 +	4.39	9.74	14.25	18.51	22.87	27.67	33.22	40.01	48.75	60.69	78.32	107.40	165.19	337.94
200 +	6.20	11.79	16.11	20.00	23.88	28.05	32.78	38.40	45.39	54.50	67.06	85.71	116.60	178.12
100 +	9.94	15.40	19.18	22.48	25.75	29.26	33.22	37.89	43.57	50.77	60.25	73.43	93.11	125.80
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

PROPORTION THAT STOP (FOR FIRST TERM)

1400 +	1.01	1.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	1.01	1.00	.99	.99	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	1.02	1.00	.99	.98	.99	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	1.02	.99	.98	.97	.97	.98	.00	.00	.00	.00	.00	.00	.00	.00
1000 +	1.02	.99	.97	.96	.95	.96	.97	.00	.00	.00	.00	.00	.00	.00
900 +	1.01	.98	.95	.94	.93	.93	.94	.97	.00	.00	.00	.00	.00	.00
800 +	1.01	.97	.93	.91	.90	.90	.91	.93	.96	.00	.00	.00	.00	.00
700 +	1.00	.95	.91	.88	.87	.86	.87	.88	.90	.94	.00	.00	.00	.00
600 +	.99	.93	.88	.85	.83	.82	.81	.82	.84	.88	.93	.00	.00	.00
500 +	.97	.89	.84	.80	.77	.76	.75	.76	.77	.80	.84	.90	.00	.00
400 +	.95	.85	.78	.74	.71	.69	.68	.68	.69	.71	.74	.79	.67	.00
300 +	.90	.78	.70	.65	.62	.60	.59	.58	.59	.60	.63	.67	.73	.83
200 +	.82	.68	.59	.54	.51	.48	.47	.46	.47	.47	.49	.52	.56	.63
100 +	.65	.50	.42	.38	.35	.33	.32	.32	.32	.32	.33	.34	.36	.40
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

CAPACITY UNDER SIGNALIZATION

1400 +	80.67	198.91	304.60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	76.40	200.87	311.41	410.49	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	73.24	204.97	320.87	423.91	516.37	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	71.74	211.71	333.54	440.87	536.41	622.25	.00	.00	.00	.00	.00	.00	.00	.00
1000 +	72.33	221.74	350.17	462.11	560.87	648.91	728.13	.00	.00	.00	.00	.00	.00	.00
900 +	75.65	235.97	371.74	488.63	590.68	680.87	761.41	834.02	.00	.00	.00	.00	.00	.00
800 +	82.61	255.65	399.60	521.74	627.09	719.25	800.87	873.91	939.90	.00	.00	.00	.00	.00
700 +	94.57	282.61	435.65	563.24	671.74	765.55	847.83	920.87	986.41	1045.78	.00	.00	.00	.00
600 +	113.66	319.57	482.61	615.65	726.88	821.74	904.01	976.40	1040.87	1098.91	1151.66	.00	.00	.00
500 +	143.45	370.81	544.57	682.61	795.65	890.51	971.74	1042.47	1104.97	1160.87	1211.41	1257.54	.00	.00
400 +	190.43	443.48	627.95	769.57	882.61	975.65	1054.15	1121.74	1180.94	1233.54	1280.87	1323.91	1363.43	.00
300 +	267.34	550.43	743.48	885.09	994.57	1082.61	1155.65	1217.79	1271.74	1319.40	1362.11	1400.87	1436.41	1469.31
200 +	404.35	717.39	910.43	1043.48	1142.24	1219.57	1282.61	1335.65	1381.42	1421.74	1457.86	1490.68	1520.87	1548.91
100 +	691.30	1024.35	1167.39	1270.43	1343.48	1399.38	1444.57	1482.61	1515.65	1545.06	1571.74	1596.32	1619.25	1640.87
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

SIGNAL	MODEL	
.41950	.41950	1.00000

DETERIORATION FACTORS, MODEL YEAR (DOWN) BY POLLUTANT (ACCROSS)

1.37[illegible]0	1.14600	1.00000	1.00000
1.43500	1.21400	1.00000	1.00000
1.69000	1.55800	1.00000	1.00000
1.70300	1.67100	1.00000	1.00000
1.74600	1.70800	1.00000	1.00000
1.87600	1.82400	1.00000	1.00000
2.11500	2.03300	1.00000	1.00000
1.59700	1.31200	1.00000	1.00000
1.57300	1.29000	1.00000	1.00000
1.68100	1.32700	1.00000	1.00000
1.77200	1.35100	1.00000	1.00000
1.45000	1.21800	1.00000	1.00000
1.48500	1.21700	1.00000	1.00000
1.65400	1.49700	1.00000	1.00000
1.73300	1.52400	1.00000	1.00000
1.59400	1.55800	1.00000	1.00000
1.63100	1.58400	1.00000	1.00000
1.42600	1.33900	1.00000	1.08400
1.18000	1.14400	1.00000	1.03600
.95300	.96300	1.00000	.99100

MODAL MODEL COEFFICIENTS FOR CO - AS INPUT

.10210419+01	-.46106476-01	.12750413-01	.19804664-01
.10487151-02	-.15174127+00	.19398060-01	-.79918522-04
-.27256622-03	.33066291+00	-.24132896-02	.32060244-03
.35761200+00	-.24510358-01	.43812852-01	.49628541-02
.44958130-03	-.47973134-01	.61538182-02	.10994070-04
-.67511966-04	.30338936+00	-.27355787-02	.13473761-03
.28043038+00	-.47583580-02	.43524541-01	.13808063-02
.10754808-03	-.21531656-02	.93090301-03	.11250070-04
-.19257031-05	.22521783+00	-.40214434-02	.12248126-03
.49613750+00	-.14627926-01	.61504323-01	-.10729437-02
.21256545-03	-.69023652-02	.97647379-03	.10525828-03
.37405029-04	.26291054+00	-.18189936-02	.84008745-04
.50066710+00	-.17586585-01	.59339337-01	-.18133272-02
.22920808-03	-.12368988-01	.11492474-02	.74215845-04
.14108437-04	.30531263+00	-.70244968-02	.10785337-03
.39664203+00	-.13213880-01	.56552373-01	-.19716325-02
.16135792-03	-.43251587-02	.21358313-03	.86380664-04
.40023762-04	.24617422+00	-.68550445-02	.10254829-03
.36676234+00	-.14121491-01	.68226576-01	-.32857144-02
.18291990-03	.22933292-02	.19526284-04	.13627447-03
.54617223-04	.22517568+00	-.46133995-02	.69841262-04
.10577946+01	-.67509890-01	.62050894-01	.11177700-01
.14054242-02	-.17354453+00	.21822363-01	.12219173-03
-.29136962-03	.30515999+00	-.65815225-02	.36294828-03
.68093568+00	-.48967101-01	.90703070-01	.41544996-02
.97224675-03	-.92593908-01	.13378501-01	.19100340-03
-.13010977-03	.19975567+00	-.77630468-02	.33748685-03
.10887880+01	-.71653783-01	.56213565-01	.12077432-01
.14177663-02	-.18283314+00	.22780791-01	.11450195-03
-.30369124-03	.31737489+00	-.97049810-02	.31322357-03
.12207556+01	-.89525878-01	.95823228-01	.61595142-02
.17752303-02	-.19405907+00	.24501167-01	.30660117-03
-.31120144-03	.30530828+00	-.67905560-02	.22574072-03
.14931040+01	-.10349673+00	.72227300-02	.59160900-02
.20053600-02	-.23721019+00	.26225590-01	.23920000-04
-.39850000-03	.32677001+00	-.91728700-02	.29820000-03
.11040086+01	-.79453980-01	.56303190-01	.17077200-02
.16181600-02	-.17064409+00	.19803410-01	.20100000-03
-.26382000-03	.25955878+00	-.75569700-02	.26727000-03
.28853572+00	-.12315690-01	.92407660-01	-.31505000-02
.16614000-03	.70702200-02	.46436000-03	.14813000-03
.56590000-04	.15976294+00	-.65233000-02	.10359000-03
.20974290+00	-.12846910-01	.96859620-01	-.66359300-02
.18599000-03	.21924630-01	-.15615900-02	.27883000-03
.12293000-03	.11387944+00	-.28685800-02	.47190000-04
.57665520+00	-.36277410-01	.21571960-01	.29442400-02
.63650000-03	-.52853430-01	.69414500-02	-.17560000-04
-.94470000-04	.25530096+00	-.76948500-02	.13531000-03
.54005560+00	-.39594090-01	.28321180-01	.14426300-02
.70014000-03	-.57096950-01	.73297800-02	.53550000-04
-.95880000-04	.20601581+00	-.58017900-02	.85580000-04
.21578521+00	-.12577798-01	.51477298-01	-.23425999-02
.16780000-03	-.15755999-02	.28229994-03	.12529999-03
.46500006-04	.11655778+00	-.46298988-02	.69899994-04
.21578521+00	-.12577798-01	.51477298-01	-.23425999-02
.16780000-03	-.15755999-02	.28229994-03	.12529999-03

.48500006-04	.11655778+00	-.46298988-02	.69899994-04
.21579521+00	-.12577798-01	.51477298-01	-.23425999-02
.16780000-03	-.15755999-02	.28229994-03	.12529999-03
.48500006-04	.11655778+00	-.46298988-02	.69899994-04

MODAL MODEL COEFFICIENTS FOR CO - AFTER APPLICATION OF DETERIORIATION

.11701140+01	-.52836021-01	.14611973-01	.22696145-01
.12018275-02	-.17389550+00	.22230177-01	-.91586626-04
-.31236089-03	.37893969+00	-.27656299-02	.36741040-03
.77181410+00	-.29755575-01	.53188802-01	.60249049-02
.54579170-03	-.58239385-01	.74707353-02	.13346801-04
-.81959527-04	.36831347+00	-.33209925-02	.16357146-03
.43691053+00	-.74135218-02	.67811235-01	.21512962-02
.16755991-03	-.33546320-02	.14503469-02	.17527609-04
-.30002454-05	.35712138+00	-.62654098-02	.19082580-03
.82904576+00	-.24443264-01	.10277372+00	-.17928889-02
.35516345-03	-.11366752-01	.16316877-02	.17588659-03
.62503803-04	.43932351+00	-.30395383-02	.14037861-03
.85513941+00	-.30037587-01	.10135159+00	-.30971629-02
.39148740-03	-.21126232-01	.19629146-02	.12676066-03
.24097210-04	.52147397+00	-.11997841-01	.18421356-03
.72347506+00	-.24102117-01	.10679953+00	-.35962577-02
.29431685-03	-.78891442-02	.38957563-03	.15755833-03
.73003342-04	.44902178+00	-.12503601-01	.18704808-03
.74562794+00	-.25708991-01	.13870463+00	-.66798574-02
.37187616-03	.46623383-02	.39696935-04	.27704600-03
.11103681-03	.45778216+00	-.93790412-02	.14198729-03
.13879265+01	-.88572976-01	.81410773-01	.14665142-01
.18439166-02	-.22769042+00	.26830940-01	.16031555-03
-.38227694-03	.40036991+00	-.86349575-02	.47618814-03
.37840703+00	-.63167560-01	.11700696+00	.53593045-02
.12541993-02	-.11944614+00	.17258266-01	.24639439-03
-.16784160-03	.25768481+00	-.10014330-01	.43535804-03
.14448217+01	-.95084570-01	.74595401-01	.16026752-01
.18808451-02	-.24261958+00	.30230110-01	.15194409-03
-.40299501-03	.42115648+00	-.12878510-01	.41564768-03
.16492406+01	-.12094946+00	.12945718+00	.83215037-02
.23983361-02	-.26217380+00	.33101077-01	.41421818-03
-.42043315-03	.41247149+00	-.91740412-02	.30497571-03
.18186007+01	-.12605902+00	.87972851-02	.72057976-02
.24425285-02	-.28892201+00	.31542769-01	.29134560-04
-.48537300-03	.40044187+00	-.11172556-01	.36320760-03
.13435795+01	-.96695272-01	.68520982-01	.20782952-02
.19693007-02	-.20767386+00	.24100750-01	.24461700-03
-.32106894-03	.31588304+00	-.92455125-02	.32526759-03
.43193797+00	-.19436588-01	.13833457+00	-.47162985-02
.24871158-03	.10584119-01	.69514692-03	.22175061-03
.84715230-04	.23916512+00	-.97653801-02	.15507423-03
.11964816+00	-.19581739-01	.14761406+00	-.10113157-01
.28344876-03	.33413136-01	-.23905312-02	.42493692-03
.18734532-03	.17355227+00	-.43717159-02	.71917560-04
.89942880+00	-.56520205-01	.33609114-01	.45871259-02
.99166700-03	-.82345644-01	.10814779-01	-.27358480-04
-.14718426-03	.39775890+00	-.11988576-01	.21081298-03
.85544807+00	-.62717039-01	.44860749-01	.22851259-02
.11092218-02	-.90441569-01	.11610272-01	.84823200-04
-.13603392-03	.32633380+00	-.91900354-02	.13555872-03
.28893640+00	-.16841672-01	.68928102-01	-.31367413-02
.22469420-03	-.21097283-02	.37759962-03	.16777669-03
.64941508-04	.15607087+00	-.61994345-02	.93596092-04
.24685828+00	-.14389001-01	.58890029-01	-.26799343-02
.19196320-03	-.19024863-02	.32295113-03	.14334319-03

.55484007-04	.13334210+00	-.52966042-02	.79965593-04
.20780116-00	-.12112419-01	.49572638-01	-.22559237-02
.16159140-03	-.15173027-02	.27185484-03	.12066389-03
.46705506-04	.11224514+00	-.44585925-02	.67313694-04

MODEL YEAR MIX

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.14300000
.11200000

LDV STABILIZED EMISSION RATES: SPEED=15.00 ACCELERATION=-2.50

HYDROCARBONS	.09926	.04538	.05390	.01711
CARBON MONOXIDE	1.23219	.61986	.61228	.29322
CARBON DIOXIDE	5.70267	5.85563	2.84724	1.46030
NITROGEN OXIDES	-.00047	.01092	-.01138	.00356
	ACCEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC

LDV STABILIZED EMISSION RATES: SPEED=15.00 ACCELERATION= 2.50

HYDROCARBONS	.20877	.04538	.16335	.01711
CARBON MONOXIDE	3.33269	.61986	2.71283	.29322
CARBON DIOXIDE	19.60932	5.85563	13.75369	1.46030
NITROGEN OXIDES	.09677	.01092	.08585	.00356
	ACCEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS = 3.32511 G/VEH
CRUISE EMISSIONS = .20662 G/VEH SEC
PM IDLE EMISSIONS = .29322 G/VEH SEC
SUB IDLE EMISSIONS= .41950 G/VEH SEC

EXCESS EMISSIONS, GRAMS/METER*SECOND, AND QUEUE LENGTH. THE CRUISE SPEED IS 15. MPH.

1400 +	.00000	.00000	.04180	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00000	.00013	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	.0	706.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 +	.00000	.05141	.04023	.03504	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00004	.00030	.00020	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	1301.3	347.2	670.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.00000	.04837	.03873	.03415	.03081	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00019	.00050	.00043	.00024	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	367.9	205.7	314.7	698.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.00000	.04542	.03732	.03331	.03029	.02765	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00039	.00073	.00068	.00050	.00027	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	173.2	179.0	197.4	333.4	757.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.00000	.04262	.03601	.03253	.02980	.02736	.02504	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00065	.00096	.00094	.00077	.00055	.00028	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	103.9	101.2	139.4	211.9	362.9	826.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.00000	.04005	.03481	.03181	.02933	.02706	.02488	.02274	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00096	.00127	.00123	.00106	.00083	.00058	.00030	.00000	.00000	.00000	.00000	.00000	.00000
	.0	70.2	77.3	105.0	151.1	231.0	395.2	899.1	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.00000	.03775	.03373	.03114	.02888	.02676	.02470	.02268	.02065	.00000	.00000	.00000	.00000	.00000
	.00000	.00130	.00158	.00153	.00136	.00113	.00087	.00060	.00030	.00000	.00000	.00000	.00000	.00000
	.0	51.0	60.9	82.3	114.5	164.5	250.5	427.4	971.8	40.0	40.0	40.0	40.0	40.0
700 +	.00000	.03470	.03278	.03051	.02842	.02643	.02449	.02258	.02066	.01870	.00000	.00000	.00000	.00000
	.00000	.00163	.00191	.00184	.00166	.00143	.00118	.00090	.00061	.00031	.00000	.00000	.00000	.00000
	.0	40.0	49.1	66.0	89.8	124.2	177.2	268.6	457.6	1042.1	40.0	40.0	40.0	40.0
600 +	.04534	.02602	.03192	.02988	.02793	.02605	.02423	.02243	.02062	.01878	.01686	.00000	.00000	.00000
	.00051	.00159	.00226	.00217	.00198	.00174	.00148	.00121	.00092	.00062	.00032	.00000	.00000	.00000
	66.8	40.0	40.1	53.8	71.9	96.6	132.4	187.8	283.9	484.0	1107.6	40.0	40.0	40.0
500 +	.02441	.02006	.02561	.02921	.02736	.02559	.02388	.02220	.02051	.01880	.01701	.01512	.00000	.00000
	.00084	.00154	.00216	.00250	.00230	.00205	.00179	.00151	.00123	.00093	.00063	.00032	.00000	.00000
	40.0	40.0	40.0	44.0	58.0	76.3	101.4	137.9	195.0	294.7	504.4	1164.9	40.0	40.0
400 +	.01303	.01569	.02038	.02540	.02665	.02499	.02341	.02186	.02033	.01876	.01712	.01538	.01347	.00000
	.00092	.00146	.00202	.00253	.00261	.00236	.00209	.00181	.00153	.00124	.00094	.00064	.00032	.00000
	40.0	40.0	40.0	40.0	46.5	60.2	78.2	103.1	139.5	197.1	298.8	515.5	1208.2	40.0
300 +	.00851	.01216	.01579	.01948	.02351	.02419	.02276	.02139	.02004	.01867	.01722	.01566	.01393	.01196
	.00078	.00134	.00182	.00225	.00267	.00265	.00238	.00210	.00181	.00153	.00124	.00094	.00064	.00032
	40.0	40.0	40.0	40.0	40.0	46.6	59.4	76.5	100.4	135.6	191.8	292.6	511.1	1226.4
200 +	.00601	.00893	.01142	.01392	.01666	.01984	.02187	.02077	.01968	.01857	.01739	.01608	.01460	.01284
	.00071	.00117	.00153	.00186	.00218	.00250	.00262	.00234	.00206	.00178	.00150	.00122	.00093	.00063
	40.0	40.0	40.0	40.0	40.0	40.0	43.3	54.7	70.0	91.5	123.5	175.3	269.6	479.5
100 +	.00324	.00544	.00686	.00838	.01012	.01217	.01464	.01768	.01937	.01870	.01795	.01708	.01601	.01465
	.00056	.00086	.00109	.00130	.00151	.00172	.00195	.00219	.00221	.00194	.00168	.00141	.00115	.00088
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	44.4	56.6	73.7	99.2	140.7	217.3

SIGNAL MODEL (PTSIGNL3), - OUTPUT E P A

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+         +         +         +         +         +         +         +         +         +         +         +         +         +
100       200       300       400       500       600       700       800       900       1000      1100      1200      1300      1400
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LDV STABILIZED EMISSION RATES: SPEED=20.00 ACCELEPATION=-2.50

HYDROCARBONS	.14715	.06142	.08576	.01711
CARBON MONOXIDE	1.64701	.76292	.58409	.29322
CARBON DIOXIDE	12.28064	.04088	3.23976	1.46030
NITROGEN OXIDES	.01059	.02715	-.01657	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC

LDV STABILIZED EMISSION RATES: SPEED=20.00 ACCELERATION= 2.50

HYDROCARBONS	.30490	.06142	.24348	.01711
CARBON MONOXIDE	4.65898	.76292	3.89600	.29322
CARBON DIOXIDE	30.90599	.04088	21.96507	1.46030
NITROGEN OXIDES	.20028	.02715	.17314	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS = 4.79009 G/VEH
CRUISE EMISSIONS = .19073 G/VEH SEC
HH IDLE EMISSIONS = .29322 G/VEH SEC
SUPR IDLE EMISSIONS= .41950 G/VEH SEC

EXCESS EMISSIONS, GRAMS/METER*SECOND, AND QUEUE LENGTH. THE CRUISE SPEED IS 20. MPH.

1400 +	.00000	.00000	.04159	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00000	.00016	.00000	.00000	.00000	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	.0	.0	796.5	40.0	40.0	40.0									
1300 +	.00000	.05146	.04065	.03532	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00004	.00016	.00025	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	1901.3	347.2	670.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.00000	.04863	.03943	.03475	.03116	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00023	.00061	.00053	.00030	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	367.9	205.7	314.7	698.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.00000	.04598	.03834	.03426	.03100	.02803	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00049	.00089	.00083	.00062	.00033	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	173.2	139.0	197.4	333.4	757.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.00000	.04354	.03739	.03386	.03089	.02817	.02544	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00081	.00121	.00116	.00095	.00067	.00035	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	103.9	101.2	139.4	211.9	362.9	826.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.00000	.04139	.03660	.03354	.03082	.02823	.02569	.02316	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00118	.00157	.00151	.00130	.00103	.00071	.00036	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	70.2	77.3	105.0	151.1	231.0	395.2	899.1	40.0	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.00000	.03959	.03596	.03329	.03078	.02834	.02593	.02352	.02108	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00141	.00195	.00186	.00167	.00139	.00108	.00073	.00038	.00000	.00000	.00000	.00000	.00000	.00000
	.0	51.0	60.9	82.3	114.5	164.5	250.5	427.4	971.8	40.0	40.0	40.0	40.0	40.0	40.0
700 +	.00000	.03699	.03547	.03309	.03075	.02844	.02615	.02385	.02152	.01914	.00000	.00000	.00000	.00000	.00000
	.00000	.00201	.00236	.00227	.00205	.00177	.00145	.00111	.00075	.00038	.00000	.00000	.00000	.00000	.00000
	.0	40.0	40.1	66.0	89.8	124.2	177.2	268.6	457.6	1042.1	40.0	40.0	40.0	40.0	40.0
600 +	.04604	.02826	.03510	.03292	.03070	.02850	.02631	.02417	.02191	.01965	.01730	.00000	.00000	.00000	.00000
	.00063	.00196	.00279	.00267	.00243	.00215	.00183	.00149	.00113	.00077	.00039	.00000	.00000	.00000	.00000
	46.8	40.0	40.1	53.8	71.9	96.6	132.4	187.8	283.9	484.0	1107.6	40.0	40.0	40.0	40.0
500 +	.02559	.02222	.02864	.03272	.03058	.02847	.02639	.02432	.02224	.02011	.01790	.01557	.00000	.00000	
	.00103	.00189	.00246	.00308	.00283	.00253	.00220	.00186	.00151	.00115	.00078	.00039	.00000	.00000	
	40.0	40.0	40.0	44.0	58.0	76.3	101.4	137.9	195.0	294.7	504.4	1164.9	40.0	40.0	
400 +	.01410	.01773	.02322	.02896	.03032	.02930	.02634	.02441	.02247	.02050	.01844	.01627	.01393	.00000	
	.00100	.00180	.00248	.00312	.00321	.00290	.00257	.00223	.00188	.00152	.00116	.00078	.00040	.00000	
	40.0	40.0	40.0	40.0	46.5	60.2	78.2	103.1	139.5	197.1	298.8	515.5	1208.2	40.0	
300 +	.00960	.01404	.01835	.02264	.02726	.02790	.02609	.02434	.02259	.02081	.01896	.01698	.01483	.01242	
	.00096	.00166	.00224	.00277	.00328	.00326	.00292	.00258	.00223	.00188	.00152	.00116	.00078	.00040	
	40.0	40.0	40.0	40.0	40.0	46.6	59.4	76.5	100.4	135.6	191.8	292.6	511.1	1226.4	
200 +	.00701	.01056	.01357	.01653	.01972	.02335	.02555	.02405	.02258	.02107	.01949	.01779	.01590	.01373	
	.00097	.00143	.00189	.00229	.00268	.00308	.00323	.00288	.00254	.00219	.00184	.00150	.00114	.00078	
	40.0	40.0	40.0	40.0	40.0	40.0	43.3	54.7	70.0	91.5	123.5	175.3	269.6	479.5	
100 +	.00467	.00664	.00839	.01021	.01224	.01459	.01738	.02075	.02247	.02143	.02031	.01906	.01762	.01589	
	.00069	.00105	.00134	.00160	.00186	.00212	.00240	.00269	.00271	.00239	.00206	.00174	.00142	.00109	
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	44.4	56.6	73.7	99.2	140.7	217.3	

+	+	+	+	+	+	+	+	+	+	+	+	+	+
100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

LDV STABILIZED EMISSION RATES: SPEED=25.00 ACCELERATION=-2.50

HYDROCARBONS	.20151	.08012	.12139	.01711
CARBON MONOXIDE	2.09169	.90664	1.18505	.29322
CARBON DIOXIDE	16.14213	13.20402	2.93811	1.46030
NITROGEN OXIDES	.02504	.05749	-.03243	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC

LDV STABILIZED EMISSION RATES: SPEED=25.00 ACCELERATION= 2.50

HYDROCARBONS	.41369	.08012	.33317	.01711
CARBON MONOXIDE	6.21809	.90664	5.31145	.29322
CARBON DIOXIDE	44.49670	13.20402	31.29268	1.46030
NITROGEN OXIDES	.33767	.05749	.28038	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS = 6.49650 G/VEH
CRUISE EMISSIONS = .19173 G/VEH SEC
TM IDLE EMISSIONS = .29322 G/VEH SEC
SUB IDLE EMISSIONS= .41950 G/VEH SEC

EXCESS EMISSIONS, GRAMS/METER*SECOND, AND QUEUE LENGTH. THE CRUISE SPEED IS 25. MPH.

1400 *	.00000	.00000	.04220	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00000	.00019	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	.0	796.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 *	.00000	.05152	.04112	.03565	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00005	.00043	.00010	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	1901.3	347.2	670.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 *	.00000	.04894	.04027	.03545	.03155	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00007	.00072	.00063	.00036	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	367.9	205.7	314.7	698.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 *	.00000	.04662	.03951	.03536	.03181	.02846	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00058	.00104	.00099	.00073	.00039	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	173.2	139.0	197.4	333.4	757.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 *	.00000	.04460	.03899	.03539	.03214	.02901	.02590	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00096	.00144	.00138	.00113	.00080	.00042	.00000	.00000	.00000	.00000	.00000	.00000
	.0	103.9	101.2	139.4	211.9	362.9	826.6	40.0	40.0	40.0	40.0	40.0	40.0
900 *	.00000	.04294	.03866	.03552	.03254	.02958	.02662	.02364	.00000	.00000	.00000	.00000	.00000
	.00000	.00140	.00186	.00180	.00155	.00122	.00084	.00043	.00000	.00000	.00000	.00000	.00000
	.0	70.2	77.3	105.0	151.1	231.0	395.2	899.1	40.0	40.0	40.0	40.0	40.0
800 *	.00000	.04170	.03852	.03576	.03298	.03017	.02734	.02448	.02157	.00000	.00000	.00000	.00000
	.00000	.00191	.00232	.00224	.00198	.00165	.00128	.00087	.00045	.00000	.00000	.00000	.00000
	.0	51.0	60.9	82.3	114.5	164.5	250.5	427.4	971.8	40.0	40.0	40.0	40.0
700 *	.00000	.03963	.03856	.03607	.03344	.03076	.02805	.02530	.02251	.01964	.00000	.00000	.00000
	.00000	.00239	.00280	.00269	.00243	.00210	.00172	.00132	.00090	.00046	.00000	.00000	.00000
	.0	40.0	49.1	66.0	89.8	124.2	177.2	266.6	457.6	1042.1	40.0	40.0	40.0
600 *	.04685	.03084	.03876	.03642	.03390	.03132	.02871	.02608	.02340	.02066	.01782	.00000	.00000
	.00075	.00233	.00331	.00317	.00289	.00255	.00217	.00177	.00135	.00091	.00046	.00000	.00000
	66.8	40.0	40.1	53.6	71.9	96.6	132.4	187.8	283.9	484.0	1107.6	40.0	40.0
500 *	.02694	.02471	.03214	.03676	.03429	.03179	.02928	.02677	.02422	.02162	.01892	.01609	.00000
	.00123	.00225	.00316	.00366	.00336	.00300	.00262	.00221	.00180	.00137	.00092	.00047	.00000
	40.0	40.0	40.0	44.0	58.0	76.3	101.4	137.9	195.0	294.7	504.4	1164.9	40.0
400 *	.01543	.02009	.02648	.03305	.03454	.03212	.02972	.02734	.02494	.02250	.01996	.01730	.01445
	.00119	.00214	.00295	.00371	.00382	.00345	.00306	.00265	.00223	.00181	.00136	.00093	.00047
	40.0	40.0	40.0	40.0	46.5	60.2	78.2	103.1	139.5	197.1	298.8	515.5	1208.2
300 *	.01085	.01622	.02129	.02628	.03157	.03219	.02993	.02773	.02552	.02328	.02095	.01850	.01585
	.00114	.00197	.00266	.00329	.00390	.00398	.00347	.00307	.00265	.00223	.00181	.00137	.00093
	40.0	40.0	40.0	40.0	40.0	46.6	59.4	76.5	100.4	135.6	191.8	292.6	511.1
200 *	.00815	.01245	.01604	.01954	.02324	.02739	.02979	.02783	.02590	.02395	.02192	.01975	.01740
	.00103	.00170	.00224	.00272	.00319	.00365	.00383	.00342	.00301	.00260	.00219	.00178	.00136
	40.0	40.0	40.0	40.0	40.0	40.0	43.3	54.7	70.0	91.5	123.5	175.3	269.6
100 *	.00553	.00803	.01015	.01231	.01468	.01738	.02052	.02428	.02604	.02456	.02302	.02135	.01948
	.00082	.00125	.00159	.00191	.00221	.00252	.00285	.00320	.00323	.00284	.00245	.00207	.00168
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	44.4	56.6	73.7	99.2	140.7
	.01731												
	.00129												
	217.3												

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+         +         +         +         +         +         +         +         +         +         +         +         +         +
100       200       300       400       500       600       700       800       900       1000      1100      1200      1300      1400
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LDV STABILIZED EMISSION RATES: SPEED=30.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC
HYDROCARBONS	.26170	.10283	.15887	.01711
CARBON MONOXIDE	2.58285	1.07049	1.51235	.29322
CARBON DIOXIDE	20.25452	18.56179	1.69274	1.46030
NITROGEN OXIDES	.04168	.10662	-.06494	.00356

LDV STABILIZED EMISSION RATES: SPEED=30.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC
HYDROCARBONS	.53325	.10283	.43042	.01711
CARBON MONOXIDE	8.08536	1.07049	7.01486	.29322
CARBON DIOXIDE	60.32999	18.56179	41.76821	1.46030
NITROGEN OXIDES	.50854	.10662	.40192	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS = 8.52722 G/VEH
CRUISE EMISSIONS = .17842 G/VEH SEC
VM IDLE EMISSIONS = .29322 G/VEH SEC
SUPP IDLE EMISSIONS= .41950 G/VEH SEC

EXCESS EMISSIONS, GRAMS/METER*SECOND, AND QUEUE LENGTH. THE CRUISE SPEED IS 30. MPH.

1400 +	.00000	.00000	.04244	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00000	.00022	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	.0	796.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 +	.00000	.05150	.04168	.03604	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00006	.00051	.00035	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	1901.3	347.2	670.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.00000	.04929	.04117	.03626	.03201	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00032	.00086	.00074	.00042	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	367.9	205.7	314.7	698.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.00000	.04737	.04090	.03665	.03277	.02897	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00048	.00125	.00117	.00087	.00046	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	173.2	139.0	197.4	333.4	757.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.00000	.04585	.04086	.03718	.03362	.03004	.02644	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00113	.00170	.00163	.00134	.00094	.00049	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	103.9	101.2	139.4	211.9	362.9	826.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.00000	.04477	.04108	.03786	.03455	.03117	.02772	.02420	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00166	.00220	.00212	.00183	.00144	.00099	.00051	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	70.2	77.3	105.0	151.1	231.0	395.2	899.1	40.0	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.00000	.04418	.04153	.03867	.03556	.03232	.02901	.02562	.02215	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00225	.00273	.00264	.00234	.00195	.00151	.00103	.00053	.00000	.00000	.00000	.00000	.00000	.00000
	.0	51.0	60.9	82.3	114.5	164.5	250.5	427.4	971.8	40.0	40.0	40.0	40.0	40.0	40.0
700 +	.00000	.04273	.04221	.03958	.03661	.03349	.03029	.02702	.02367	.02023	.00000	.00000	.00000	.00000	.00000
	.00000	.00282	.00331	.00318	.00287	.00248	.00203	.00156	.00106	.00054	.00000	.00000	.00000	.00000	.00000
	.0	40.0	49.1	66.0	89.8	124.2	177.2	268.6	457.6	1042.1	40.0	40.0	40.0	40.0	40.0
600 +	.04785	.03387	.04307	.04055	.03766	.03463	.03153	.02837	.02515	.02184	.01842	.00000	.00000	.00000	.00000
	.00088	.00275	.00391	.00374	.00342	.00301	.00256	.00209	.00159	.00108	.00055	.00000	.00000	.00000	.00000
	46.8	40.0	40.1	53.8	71.9	96.6	132.4	187.8	293.9	484.0	1107.6	40.0	40.0	40.0	40.0
500 +	.02854	.02763	.03625	.04152	.03866	.03569	.03269	.02965	.02656	.02339	.02012	.01670	.00000	.00000	.00000
	.00145	.00266	.00373	.00432	.00396	.00355	.00309	.00261	.00212	.00161	.00107	.00055	.00000	.00000	.00000
	40.0	40.0	40.0	44.0	58.0	76.3	101.4	137.9	195.0	294.7	504.4	1164.9	40.0	40.0	40.0
400 +	.01707	.02287	.03032	.03787	.03951	.03660	.03370	.03079	.02785	.02485	.02175	.01851	.01507	.00000	
	.00141	.00252	.00349	.00438	.00451	.00407	.00361	.00313	.00264	.00214	.00162	.00110	.00056	.00000	
	40.0	40.0	40.0	40.0	46.5	60.2	78.2	103.1	139.5	197.1	298.8	515.5	1208.2	40.0	
300 +	.01233	.01878	.02475	.03056	.03664	.03727	.03445	.03171	.02897	.02618	.02330	.02029	.01707	.01356	
	.00134	.00232	.00314	.00389	.00461	.00458	.00410	.00362	.00313	.00264	.00213	.00162	.00110	.00056	
	40.0	40.0	40.0	40.0	40.0	46.6	59.4	76.5	100.4	135.6	191.8	292.6	511.1	1226.4	
200 +	.00949	.01466	.01896	.02308	.02738	.03214	.03477	.03229	.02982	.02733	.02477	.02207	.01916	.01595	
	.00122	.00201	.00265	.00321	.00376	.00431	.00453	.00404	.00356	.00307	.00259	.00210	.00160	.00109	
	40.0	40.0	40.0	40.0	40.0	40.0	43.3	54.7	70.0	91.5	123.5	175.3	269.6	479.5	
100 +	.00668	.00965	.01222	.01479	.01756	.02066	.02423	.02844	.03023	.02825	.02621	.02404	.02167	.01899	
	.00097	.00148	.00188	.00225	.00261	.00298	.00336	.00378	.00381	.00335	.00290	.00244	.00199	.00152	
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	44.4	56.6	73.7	99.2	140.7	217.3	

+ + + + + + + + + + + + + +

100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400

LDV STABILIZED EMISSION RATES: SPEED=35.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC
HYDROCARBONS	.32716	.13086	.19630	.01711
CARBON MONOXIDE	7.13711	1.27393	1.86318	.29322
CARBON DIOXIDE	24.58500	25.33089	-.74589	1.46030
NITROGEN OXIDES	.05914	.17922	-.12007	.00356

LDV STABILIZED EMISSION RATES: SPEED=35.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC
HYDROCARBONS	.66413	.13086	.53327	.01711
CARBON MONOXIDE	10.33567	1.27393	9.06194	.29322
CARBON DIOXIDE	78.35424	25.33089	53.02335	1.46030
NITROGEN OXIDES	.71137	.17922	.53215	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS =10.92512 G/VEH
CRUISE EMISSIONS = .13199 G/VEH SEC
HM IDLE EMISSIONS = .29322 G/VEH SEC
SUPR IDLE EMISSIONS= .41950 G/VEH SEC

EXCESS EMISSIONS, GRAMS/METER-SECOND, AND QUEUE LENGTH. THE CRUISE SPEED IS 35. MPH.

1400 +	.00000	.00000	.04273	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00000	.00027	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	.0	796.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 +	.00000	.05167	.04235	.03650	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00007	.00061	.00042	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	1901.3	347.2	670.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.00000	.04971	.04229	.03724	.03256	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00078	.00102	.00088	.00050	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	387.9	205.7	314.7	668.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.00000	.04826	.04254	.03818	.03390	.02958	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00091	.00149	.00139	.00103	.00055	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	173.2	139.0	197.4	333.4	757.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.00000	.04733	.04310	.03932	.03537	.03128	.02708	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00174	.00203	.00194	.00159	.00112	.00058	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	103.9	101.2	139.4	211.9	362.9	826.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.00000	.04694	.04356	.04064	.03695	.03305	.02902	.02487	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00197	.00262	.00252	.00218	.00171	.00118	.00061	.00000	.00000	.00000	.00000	.00000	.00000
	.0	70.2	77.3	105.0	151.1	231.0	395.2	899.1	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.00000	.04713	.04511	.04212	.03863	.03488	.03098	.02697	.02284	.00000	.00000	.00000	.00000	.00000
	.00000	.00268	.00325	.00314	.00279	.00232	.00180	.00123	.00063	.00000	.00000	.00000	.00000	.00000
	.0	51.0	60.9	82.3	114.5	164.5	250.5	427.4	971.8	40.0	40.0	40.0	40.0	40.0
700 +	.00000	.04643	.04654	.04374	.04037	.03674	.03295	.02906	.02506	.02094	.00000	.00000	.00000	.00000
	.00000	.00336	.00394	.00379	.00342	.00295	.00242	.00185	.00126	.00064	.00000	.00000	.00000	.00000
	.0	40.0	49.1	66.0	89.8	124.2	177.2	268.6	457.6	1042.1	40.0	40.0	40.0	40.0
600 +	.04901	.03747	.04819	.04545	.04214	.03857	.03489	.03111	.02724	.02326	.01914	.00000	.00000	.00000
	.00105	.00327	.00465	.00446	.00406	.00358	.00305	.00248	.00189	.00128	.00065	.00000	.00000	.00000
	66.8	40.0	40.1	53.8	71.9	96.6	132.4	187.8	283.9	484.0	1107.6	40.0	40.0	40.0
500 +	.03044	.03111	.04114	.04718	.04385	.04034	.03674	.03307	.02933	.02551	.02155	.01742	.00000	.00000
	.00172	.00316	.00444	.00514	.00472	.00422	.00368	.00311	.00252	.00192	.00130	.00066	.00000	.00000
	40.0	40.0	40.0	44.0	58.0	76.3	101.4	137.9	195.0	294.7	504.4	1164.9	40.0	40.0
400 +	.01888	.02617	.03488	.04361	.04542	.04194	.03843	.03489	.03130	.02765	.02388	.01995	.01580	.00000
	.00168	.00300	.00415	.00521	.00537	.00485	.00430	.00373	.00314	.00254	.00193	.00131	.00066	.00000
	40.0	40.0	40.0	40.0	46.5	60.2	78.2	103.1	139.5	197.1	298.8	515.5	1208.2	40.0
300 +	.01401	.02182	.02887	.03565	.04267	.04322	.03983	.03645	.03307	.02963	.02610	.02241	.01851	.01430
	.00160	.00276	.00374	.00463	.00548	.00545	.00498	.00431	.00372	.00314	.00254	.00193	.00131	.00067
	40.0	40.0	40.0	40.0	40.0	46.6	59.4	76.5	100.4	135.6	191.8	292.6	511.1	1226.4
200 +	.01107	.01730	.02242	.02729	.03231	.03779	.04070	.03758	.03449	.03136	.02816	.02482	.02126	.01738
	.00145	.00239	.00315	.00382	.00448	.00513	.00539	.00481	.00423	.00366	.00308	.00250	.00190	.00130
	40.0	40.0	40.0	40.0	40.0	40.0	43.3	54.7	70.0	91.5	123.5	175.3	269.6	479.5
100 +	.00787	.01159	.01469	.01774	.02098	.02456	.02863	.03339	.03522	.03264	.03000	.02724	.02428	.02099
	.00115	.00176	.00224	.00266	.00311	.00354	.00400	.00449	.00453	.00399	.00345	.00291	.00236	.00181
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	44.4	56.6	73.7	99.2	140.7	217.3

+ + + + + + + + + + + + + +

100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400

LDV STABILIZED EMISSION RATES: SPEED=40.00 ACCELERATION=-2.50

HYDROCARBONS	.39731	.16556	.23175	.01711
CARBON MONOXIDE	3.77115	1.53643	2.23472	.29322
CARBON DIOXIDE	29.10077	33.72807	-4.62730	1.46030
NITROGEN OXIDES	.07614	.27997	-.20383	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC

LDV STABILIZED EMISSION RATES: SPEED=40.00 ACCELERATION= 2.50

HYDROCARBONS	.80530	.16556	.63974	.01711
CARBON MONOXIDE	13.04480	1.53643	11.50837	.29322
CARBON DIOXIDE	98.51787	33.72807	64.78980	1.46030
NITROGEN OXIDES	.26539	.27997	-.66542	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS =13.74309 G/VEH
CRUISE EMISSIONS = .19205 G/VEH SEC
PM IDLE EMISSIONS = .29322 G/VEH SEC
SUPP IDLE EMISSIONS= .41950 G/VEH SEC

EXCESS EMISSIONS, GRAMS/METER*SECOND, AND QUEUE LENGTH. THE CRUISE SPEED IS 40. MPH.

1400 +	.00000	.00000	.04368	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00000	.00032	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	.0	776.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 +	.00000	.05177	.04315	.03705	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00009	.00073	.00051	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	1901.3	347.2	670.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.00000	.05022	.04362	.03840	.03322	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00046	.00123	.00107	.00060	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	367.9	215.7	314.7	698.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.00000	.04932	.04450	.04001	.03525	.03030	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00098	.00180	.00168	.00124	.00066	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	173.2	139.0	197.4	333.4	757.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.00000	.04909	.04576	.04186	.03746	.03275	.02785	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00162	.00245	.00234	.00192	.00135	.00070	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	103.9	101.2	139.4	211.9	362.9	826.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.00000	.04957	.04739	.04395	.03981	.03530	.03057	.02567	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00238	.00316	.00304	.00263	.00207	.00143	.00073	.00000	.00000	.00000	.00000	.00000	.00000
	.0	70.2	77.3	105.0	151.1	231.0	395.2	899.1	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.00000	.05065	.04938	.04625	.04229	.03793	.03334	.02858	.02366	.00000	.00000	.00000	.00000	.00000
	.00000	.00323	.00393	.00379	.00336	.00280	.00217	.00148	.00076	.00000	.00000	.00000	.00000	.00000
	.0	51.0	60.9	82.3	114.5	164.5	250.5	427.4	971.8	40.0	40.0	40.0	40.0	40.0
700 +	.00000	.05083	.05170	.04871	.04486	.04060	.03613	.03149	.02671	.02178	.00000	.00000	.00000	.00000
	.00000	.00405	.00475	.00457	.00412	.00356	.00292	.00223	.00152	.00077	.00000	.00000	.00000	.00000
	.0	40.0	49.1	66.0	89.8	124.2	177.2	268.6	457.6	1042.1	40.0	40.0	40.0	40.0
600 +	.05039	.04177	.05430	.05130	.04747	.04327	.03889	.03436	.02972	.02494	.01999	.00000	.00000	.00000
	.00127	.00395	.00561	.00537	.00490	.00432	.00368	.00299	.00228	.00155	.00079	.00000	.00000	.00000
	66.8	40.0	40.1	53.8	71.9	96.6	132.4	187.8	283.9	484.0	1107.6	40.0	40.0	40.0
500 +	.03270	.03526	.04697	.05392	.05004	.04587	.04156	.03715	.03264	.02802	.02325	.01829	.00000	.00000
	.00208	.00381	.00536	.00620	.00569	.00509	.00444	.00375	.00304	.00231	.00157	.00079	.00000	.00000
	40.0	40.0	40.0	44.0	58.0	76.3	101.4	137.9	195.0	294.7	504.4	1164.9	40.0	40.0
400 +	.02107	.03011	.04032	.05044	.05246	.04830	.04406	.03977	.03542	.03098	.02641	.02166	.01667	.00000
	.00202	.00362	.00500	.00628	.00647	.00585	.00518	.00449	.00379	.00307	.00233	.00158	.00080	.00000
	40.0	40.0	40.0	40.0	46.5	60.2	78.2	103.1	139.5	197.1	298.8	515.5	1208.2	40.0
300 +	.01611	.02544	.03377	.04172	.04986	.05037	.04623	.04211	.03796	.03375	.02943	.02494	.02023	.01517
	.00192	.00373	.00451	.00558	.00661	.00657	.00589	.00519	.00449	.00378	.00306	.00233	.00158	.00081
	40.0	40.0	40.0	40.0	40.0	46.6	59.4	76.5	100.4	135.6	191.8	292.6	511.1	1226.4
200 +	.01300	.02044	.02655	.03231	.03819	.04453	.04776	.04389	.04004	.03616	.03220	.02809	.02375	.01908
	.00175	.00289	.00380	.00461	.00540	.00619	.00650	.00580	.00511	.00441	.00372	.00301	.00230	.00156
	40.0	40.0	40.0	40.0	40.0	40.0	43.3	54.7	70.0	91.5	123.5	175.3	269.6	479.5
100 +	.00939	.01390	.01762	.02125	.02506	.02921	.03388	.03928	.04117	.03788	.03453	.03106	.02738	.02337
	.00139	.00212	.00270	.00323	.00375	.00427	.00483	.00542	.00547	.00481	.00416	.00351	.00285	.00219
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	44.4	56.6	73.7	99.2	140.7	217.3

```
+    +    +    +    +    +    +    +    +    +    +    +    +    +
100  200  300  400  500  600  700  800  900  1000 1100 1200 1300 1400
```

LDV STABILIZED EMISSION RATES: SPEED=45.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC
HYDROCARBONS	.47157	.20824	.26333	.01711
CARBON MONOXIDE	4.50159	1.87745	2.62414	.29322
CARBON DIOXIDE	33.76900	43.97004	-10.20104	1.46030
NITROGEN OXIDES	.39139	.41356	-.32217	.00356

LDV STABILIZED EMISSION RATES: SPEED=45.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH/SEC	EXCESS A/D G/VEH/SEC	IDLE G/VEH/SEC
HYDROCARBONS	.95610	.20824	.74786	.01711
CARBON MONOXIDE	16.28730	1.87745	14.40985	.29322
CARBON DIOXIDE	120.76928	43.97004	76.79924	1.46030
NITROGEN OXIDES	1.20967	.41356	.79611	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS =17.03406 G/VEH
CRUISE EMISSIONS = .20861 G/VEH SEC
HM IDLE EMISSIONS = .29322 G/VEH SEC
SUPR IDLE EMISSIONS= .41950 G/VEH SEC

EXCESS EMISSIONS, GRAMS/METER*SECOND, AND QUEUE LENGTH. THE CRUISE SPEED IS 45. MPH.

1400 +	.00000	.00000	.04350	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00000	.00039	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	.0	776.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 +	.00000	.05189	.04410	.03771	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00011	.00089	.00062	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	1901.3	347.2	670.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.00000	.05081	.04521	.03978	.03400	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00057	.00150	.00130	.00074	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	367.9	205.7	314.7	698.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.00000	.05059	.04683	.04218	.03686	.03116	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00170	.00220	.00205	.00152	.00081	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	173.2	139.0	197.4	323.4	757.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.00000	.05119	.04892	.04489	.03994	.03450	.02876	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00198	.00299	.00286	.00235	.00165	.00086	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.0	103.9	101.2	139.4	211.9	362.9	826.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.00000	.05260	.05147	.04789	.04321	.03798	.03242	.02662	.00000	.00000	.00000	.00000	.00000	.00000
	.00000	.00291	.00386	.00374	.00321	.00253	.00174	.00090	.00000	.00000	.00000	.00000	.00000	.00000
	.0	70.2	77.3	105.0	151.1	231.0	395.2	899.1	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.00000	.05483	.05446	.05114	.04664	.04156	.03614	.03049	.02464	.00000	.00000	.00000	.00000	.00000
	.00000	.00395	.00480	.00463	.00411	.00343	.00265	.00181	.00092	.00000	.00000	.00000	.00000	.00000
	.0	51.0	60.9	82.3	114.5	164.5	250.5	427.4	971.8	40.0	40.0	40.0	40.0	40.0
700 +	.00000	.05607	.05784	.05462	.05019	.04520	.03990	.03438	.02867	.02278	.00000	.00000	.00000	.00000
	.00000	.00495	.00580	.00558	.00504	.00434	.00357	.00273	.00185	.00094	.00000	.00000	.00000	.00000
	.0	40.0	49.1	66.0	89.8	124.2	177.2	268.6	457.6	1042.1	40.0	40.0	40.0	40.0
600 +	.05203	.04687	.06155	.05825	.05380	.04886	.04364	.03824	.03267	.02694	.02101	.00000	.00000	.00000
	.00155	.00493	.00686	.00657	.00599	.00528	.00449	.00366	.00279	.00189	.00096	.00000	.00000	.00000
	66.8	40.0	40.1	53.8	71.9	96.6	132.4	187.8	283.9	484.0	1107.6	40.0	40.0	40.0
500 +	.03539	.04019	.05390	.06194	.05740	.05245	.04730	.04200	.03658	.03101	.02527	.01931	.00000	.00000
	.00254	.00466	.00655	.00758	.00695	.00622	.00542	.00458	.00372	.00283	.00191	.00097	.00000	.00000
	40.0	40.0	40.0	44.0	58.0	76.3	101.4	137.9	195.0	294.7	504.4	1164.9	40.0	40.0
400 +	.02765	.03479	.04679	.05857	.06083	.05586	.05076	.04558	.04032	.03495	.02943	.02370	.01771	.00000
	.00247	.00462	.00611	.00768	.00791	.00714	.00633	.00549	.00463	.00375	.00285	.00193	.00098	.00000
	40.0	40.0	40.0	40.0	46.5	60.2	78.2	103.1	139.5	197.1	298.8	515.5	1208.2	40.0
300 +	.01864	.02975	.03960	.04893	.05841	.05886	.05384	.04882	.04376	.03864	.03339	.02796	.02227	.01622
	.00235	.00407	.00551	.00682	.00808	.00803	.00719	.00635	.00549	.00462	.00374	.00285	.00193	.00098
	40.0	40.0	40.0	40.0	40.0	46.6	59.4	76.5	100.4	135.6	191.8	292.6	511.1	1226.4
200 +	.01526	.02417	.03146	.03827	.04517	.05254	.05616	.05139	.04664	.04187	.03700	.03199	.02673	.02110
	.00214	.00353	.00464	.00564	.00660	.00757	.00794	.00709	.00624	.00539	.00454	.00368	.00281	.00191
	40.0	40.0	40.0	40.0	40.0	40.0	43.3	54.7	70.0	91.5	123.5	175.3	269.6	479.5
100 +	.01111	.01664	.02111	.02543	.02990	.03474	.04012	.04629	.04824	.04409	.03990	.03559	.03107	.02620
	.00170	.00259	.00330	.00395	.00456	.00522	.00590	.00662	.00668	.00588	.00508	.00428	.00348	.00267
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	44.4	56.6	73.7	99.2	140.7	217.3

```
+         +         +         +         +         +         +         +         +         +         +         +         +         +
100       200       300       400       500       600       700       800       900       1000      1100      1200      1300      1400
```

CRUISE EMISSIONS, GRAMS PER METER-SECOND

15	+ .00086	.00171	.00257	.00342	.00428	.00514	.00599	.00685	.00770	.00856	.00942	.01027	.01113	.01198
20	+ .00059	.00119	.00178	.00237	.00296	.00356	.00415	.00474	.00533	.00593	.00652	.00711	.00770	.00830
25	+ .00047	.00090	.00135	.00180	.00225	.00270	.00315	.00361	.00406	.00451	.00496	.00541	.00586	.00631
30	+ .00037	.00074	.00111	.00148	.00185	.00222	.00259	.00296	.00333	.00370	.00406	.00443	.00480	.00517
35	+ .00032	.00065	.00097	.00129	.00162	.00194	.00226	.00258	.00291	.00323	.00355	.00388	.00420	.00452
40	+ .00030	.00060	.00090	.00119	.00149	.00179	.00209	.00239	.00269	.00298	.00328	.00358	.00388	.00418
45	+ .00029	.00058	.00086	.00115	.00144	.00173	.00202	.00230	.00259	.00288	.00317	.00346	.00374	.00403
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

NORMAL EXIT. EXECUTION TIME: 6534 MILLISECONDS.

GORKET PRINTS

APPENDIX D

NOSIGNAL*

NOSIGNAL was run with all the emission correction factors set equal to 1. Thus, the verification tables are for calendar year 1977 hot stabilized LDV. Note that the input values for IDL77 and IDLFTR were consequently identical.

The output of NOSIGNAL both consists of two sections. The first is a queueing analysis which presents the results of equations 1 through 10 of Volume II. The second section presents the tables of emission rates.

*The sample executions contained herein are those that were used to generate the tables and screening curves in Volume I of the Hot Spot Guidelines.[1]

```
C     DATA SET PTNOSIGNL2 AT LEVEL 009 AS OF 08/01/78                    MAI00010
C                                                                        MAI00020
C     ****************************************************************** MAI00030
C                                                                        MAI00040
C     PROGRAM NOSIGNAL                                                   MAI00050
C     VERSION 2.0 - 1975 MODAL MODEL DATA WITH DETERIORATION TO 1977     MAI00060
C     SEPTEMBER,1977                                                     MAI00070
C                                                                        MAI00080
C     PROGRAM TO GENERATE TABLES OF EXCESS EMISSIONS AND QUEUE LENGTHS   MAI00090
C     FOR NONSIGNALIZED INTERSECTIONS.                                   MAI00100
C                                                                        MAI00110
C                                                                        MAI00120
C     FRANK BENESH                                                       MAI00130
C     GCA/TECHNOLOGY DIVISION                                            MAI00140
C     BURLINGTON ROAD                                                    MAI00150
C     BEDFORD, MASSACHUSETTS                                             MAI00160
C     (617) 275-9000                                                     MAI00170
C                                                                        MAI00180
C                                                                        MAI00190
C     EQUATION NUMBERS IN COMMENTS REFER TO "GUIDELINES FOR              MAI00200
C     IDENTIFICATION AND EVALUATION OF LOCALIZED VIOLATIONS OF CARBON    MAI00210
C     MONOXIDE STANDARDS, VOLUME 2: RATIONALE", JULY 1977                MAI00220
C                                                                        MAI00230
C                                                                        MAI00240
C     INPUT DATA REQUIRED                                                MAI00250
C        2I5                                                             MAI00260
C             NUMBER OF PHASES (ASSUMED TO BE 2)                         MAI00270
C             NUMBER OF TABLES (UPPER LIMIT OF 7)                        MAI00280
C        2F5.0,F10.0  (REPEAT 2 * NSPEED TIMES)                          MAI00290
C             INITIAL OR TERMINAL SPEED, DECELERATION OR ACCELERATION    MAI00300
C             EMISSION FACTOR RATIO FOR CO AT CRUISE SPEED                MAI00310
C        2F10.0                                                          MAI00320
C             IDL77 - CO SUP. & IDLE COMPOSITE EMISSION FACTOR           MAI00330
C             IDLFTR - IDLE EMISSION FACTOR FOR DESIRED SCENARIO         MAI00340
C        4F10.0  (REPEAT 20 TIMES)                                       MAI00350
C             DETERIORATION FACTORS FOR EACH MODAL MODEL  MODEL YEAR      MAI00360
C        10X,4E15.8   REPEAT 3 * 4 * 12 TIMES                            MAI00370
C             MODAL MODEL COEFFICIENTS                                   MAI00380
C        10F5.0  -  REPEAT TWICE                                         MAI00390
C             MODEL YEAR MIX                                             MAI00400
C
C
```

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C                                                                       MAI00410
C                                                                       MAI00420
C     SELECTED VARIABLES IN MAIN PROGRAM:                               MAI00430
C        I, INDEX - HUNDREDS OF VEHICLES ON FACILITY UNDER ANALYSIS     MAI00440
C        J, INDEX - HUNDREDS OF VEHICLES ON CROSSING MAIN STREET        MAI00450
C        L13, MINIMUM ACCEPTABLE TIME GAP                               MAI00460
C        NSPEED, NUMBER OF TABLES (SPEEDS)                              MAI00470
C        IS, INDEX - FOR NSPEED                                         MAI00480
C                                                                       MAI00490
C                                                                       MAI00500
C     ..................................................................MAI00510
C                                                                       MAI00520
C                                                                       MAI00530
      DIMENSION Q1(18,18),D1(18,18),C(18,18),QLENTH(18,18),EXCESS(18,18)MAI00540
     &,CRUISE(18,18),VEL(14),ACC(14),FACTOR(14),EQUEC(18,18)            MAI00550
      ITIME=0                                                           MAI00560
C                                                                       MAI00570
C     READ NUMBER OF PHASES (2), AND NUMBER OF TABLES (SPEEDS)          MAI00580
C                                                                       MAI00590
      READ(5,59) NPHASE,NSPEED                                          MAI00600
   59 FORMAT(I5,I5)                                                     MAI00610
C                                                                       MAI00620
C     READ SPEED AND ACCELERATION PAIRS (TWO FOR EACH TABLE), AND       MAI00630
C     CONCURRENTLY, READ THE EMISSION FACTOR RATIO FOR THE SPEED        MAI00640
C                                                                       MAI00650
      ISEND=NSPEED*2                                                    MAI00660
      DO 76 IS=1,ISEND                                                  MAI00670
   76 READ(5,488) VEL(IS),ACC(IS),FACTOR(IS)                            MAI00680
  488 FORMAT(2F5.2,F10.0)                                               MAI00690
C                                                                       MAI00700
C     LOOP TO STMT 5 ON ACCEPTABLE TIME GAP (3 TO 10 SECONDS)           MAI00710
C                                                                       MAI00720
C     DO 5 L13=3,10                                                     MAI00730
      L13=4                                                             MAI00740
C                                                                       MAI00750
C     INITIALIZE VARIABLES                                              MAI00760
C                                                                       MAI00770
      DO 1 I=1,14                                                       MAI00780
      DO 2 J=1,14                                                       MAI00790
      D1(I,J)=0.                                                        MAI00800
      C(I,J)=0.
```

```
      Q1(I,J)=0.                                                        MAI00810
      CRUISE(I,J)=0.0                                                   MAI00820
      EQUEC(I,J)=0.0                                                    MAI00830
    2 EXCESS(I,J)=0.                                                    MAI00840
    1 CONTINUE                                                          MAI00850
      DO 3 J=1,14                                                       MAI00860
      DO 4 I=1,14                                                       MAI00870
      V2=J*100                                                          MAI00880
      V1=I*100                                                          MAI00890
C                                                                       MAI00900
C     CALCULATE APPROACH CAPACITY (EQ.10)                               MAI00910
C                                                                       MAI00920
      EGAP=2.*L13*V2/3600.                                              MAI00930
      EGAP=EXP(-EGAP)                                                   MAI00940
      C(L13,J)=(2.*V2*EGAP)/(1.-EGAP)                                   MAI00950
C                                                                       MAI00960
C     CALCULATE THE NUMBER OF QUEUED VEHICLES (EQ.8)                    MAI00970
C                                                                       MAI00980
      SKIP1=C(L13,J)-V1                                                 MAI00990
      IF(SKIP1.LE.0.0) GO TO 4                                          MAI01000
      Q1(I,J)=V1/SKIP1                                                  MAI01010
C                                                                       MAI01020
C     CALCULATE IDLE TIME (EQ.9)                                        MAI01030
C                                                                       MAI01040
      D1(I,J)=Q1(I,J)*3600./C(L13,J)                                    MAI01050
    4 CONTINUE                                                          MAI01060
    3 CONTINUE                                                          MAI01070
C                                                                       MAI01080
C     WRITE OUT QUEUING ANALYSIS OF THE INTERSECTION                    MAI01090
C                                                                       MAI01100
      WRITE(6,700)                                                      MAI01110
      CALL  RFOUT(Q1)                                                   MAI01120
      WRITE(6,1100)                                                     MAI01130
      CALL TRFOUT(D1)                                                   MAI01140
      WRITE(6,1600)                                                     MAI01150
      CALL TRFOUT(C)                                                    MAI01160
  401 FORMAT(1HO,10X,'+',13(7X,'+'),//,9X,' 100     200     300     ',  MAI01170
     1'400     500     600     700     800     900     1000    ',       MAI01180
     2'1100    1200    1300    1400')                                   MAI01190
  700 FORMAT(1H1,'TOTAL QUEUE LENGTH, VEHICLES')                        MAI01200
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```
 1100 FORMAT(1H1,"TOTAL DELAY, SECONDS")                                  MAI01210
 1600 FORMAT(1H1,"APPROACH CAPACITY, VEHICLES PER HOUR")                  MAI01220
  999 CONTINUE                                                            MAI01230
C                                                                         MAI01240
C                                                                         MAI01250
C     LOOP TO STATEMENT 99 .  ON EACH LOOP ONE TABLE IS CALCULATED        MAI01260
C     AND PRINTED.                                                        MAI01270
C                                                                         MAI01280
C                                                                         MAI01290
      IT=1                                                                MAI01300
      DO 99 IS=1,NSPEED                                                   MAI01310
      V=VEL(IT)                                                           MAI01320
      A=ACC(IT)                                                           MAI01330
      F=FACTOR(IT)                                                        MAI01340
      CALL EMIS(EMQ,EMI,EMQC,EMC,VEL,ACC,ITIME,IT,F)                      MAI01350
      ITIME=ITIME+1                                                       MAI01360
      DO 21 I=1,14                                                        MAI01370
      DO 22 J=1,14                                                        MAI01380
C                                                                         MAI01390
C     CALCULATE THE QUEUE LENGTH IN METERS                                MAI01400
C                                                                         MAI01410
      QLENTH(I,J)=Q1(I,J)*F.0                                             MAI01420
      IF(QLENTH(I,J).LT.40.0) QLENTH(I,J)=40.0                            MAI01430
C                                                                         MAI01440
C     CALCULATE EXCESS EMISSIONS                                          MAI01450
C                                                                         MAI01460
      EQUEC(I,J)=EMQC*I*100./3600./QLENTH(I,J)                            MAI01470
      EQUE=(EMQ+EMQC)*I*100./3600.                                        MAI01480
      EI=EMI*D1(I,J)*I*100./3600.                                         MAI01490
      EXCESS(I,J)=(EQUE+EI)/QLENTH(I,J)                                   MAI01500
C     EXCESS NOW EQUALS TOTAL QUEUE EMISSIONS                             MAI01510
C     EQUEC EQUALS CRUISE COMPONENT OF TOTAL QUEUE EMISSIONS              MAI01520
      IF(EQUE.LE.0..OR.EI.LE.0.) EXCESS(I,J)=0.                           MAI01530
   22 CONTINUE                                                            MAI01540
C                                                                         MAI01550
C     CALCULATE THE CRUISE EMISSIONS AND SAVE FOR PRINTING OUTSIDE LOOP   MAI01560
C                                                                         MAI01570
      CRUISE(IS,I)=(EMC*I*100./3600.)/(V*1609.344/3600.)                  MAI01580
   21 CONTINUE                                                            MAI01590
C                                                                         MAI01600
```

```
C     WRITE EXCESS EMISSIONS AND QUEUE LENGTH TABLE                    MAI01610
C                                                                      MAI01620
      WRITE(6,1700) V                                                  MAI01630
      DO 17 J=1,14                                                     MAI01640
      M=14-J+1                                                         MAI01650
      N=M*100                                                          MAI01660
      WRITE(6,201) N,(EXCESS(I,M),I=1,14)                              MAI01670
      WRITE(6,203) (EQUEC(I,M),I=1,14)                                 MAI01680
  203 FORMAT(1X,5X,14(F7.5,1X))                                        MAI01690
   17 WRITE(6,202) (QLENTH(I,M),I=1,14)                                MAI01700
      WRITE(6,401)                                                     MAI01710
  201 FORMAT(1H0,I4,1X,'+',14(F7.5,1X))                                MAI01720
 1700 FORMAT(1H1,'QUEUE & CRUISE COMPONENT, GRAMS/METER*SECOND,',      MAI01730
     1'AND QUEUE LENGTH.  THE CRUISE SPEED IS ',F3.0,' MPH.')          MAI01740
  202 FORMAT(1H ,5X,14(F7.1,1X))                                       MAI01750
   99 CONTINUE                                                         MAI01760
C                                                                      MAI01770
C     WRITE CRUISE EMISSIONS TABLE                                     MAI01780
C                                                                      MAI01790
      WRITE(6,1900)                                                    MAI01800
      DO 199 L=1,NSPEED                                                MAI01810
      L2=VEL(2*L)                                                      MAI01820
  199 WRITE(6,201) L2,(CRUISE(L,L3),L3=1,14)                           MAI01830
      WRITE(6,401)                                                     MAI01840
 1900 FORMAT(1H1,' CRUISE EMISSIONS, GRAMS PER METER-SECOND')          MAI01850
    5 CONTINUE                                                         MAI01860
      STOP                                                             MAI01870
      END                                                              MAI01880
```

```
      SUBROUTINE EMIS(EMQ,EMI,EMQC,EMC,VEL,ACC,ITIME,IT,FACTOR)          EMI00010
                                                                         EMI00020
C     ..................................................................  EMI00030
C                                                                        EMI00040
C     SUPROUTINE EMISSIONS DETERMINATION                                 EMI00050
C                                                                        EMI00060
C                                                                        EMI00070
C     INPUT VARIABLES:                                                   EMI00080
C        ITIME, COUNTER                                                  EMI00090
C        IT, COUNTER                                                     EMI00100
C        VEL, VELOCITY ARRAY (MILES PER HOUR)                            EMI00110
C        ACC, ACCELERATION ARRAY (MILES PER HOUR - SEC)                  EMI00120
C        FACTOR - EMISSION FACTOR RATIO AT CRUISE SPEED 'VEL'            EMI00130
C                                                                        EMI00140
C                                                                        EMI00150
C     OUTPUT VARIABLES:                                                  EMI00160
C        EMQ, QUEUE EMISSIONS FROM ACCELERATION AND DECELERATION         EMI00170
C                                        (GRAMS CO PER VEHICLE)          EMI00180
C        EMI, IDLE EMISSIONS (GRAMS CO PER VEHICLE - SECOND)             EMI00190
C        EMQC,CRUISE COMPONENT OF QUEUE EMISSIONS                        EMI00200
C        EMC, CRUISE EMISSIONS OVER ACCELERATION AND DECELERATION TIME   EMI00210
C                                        (GRAMS CO PER VEHICLE)          EMI00220
C                                                                        EMI00230
C                                                                        EMI00240
C                                                                        EMI00250
C     IN THE FIRST EXECUTION OF THE SUBROUTINE, INPUT DATA ARE READ:     EMI00260
C        FACTOR, DESIRED EMISSIONS VS. 1977 LDV FROM MODAL MODEL         EMI00270
C        COIDLP, SUPPLEMENT P CO IDLE EMISSION FACTORS (G/VEH SEC)       EMI00280
C        DECIDL, MODEL YEAR MIX (13 YEARS) FOR IDLE EMISSION FACTORS     EMI00290
C        DETER, DETERIORATION FACTORS FOR THE MODAL MODEL COEFFICIENTS   EMI00300
C        COEF, MODAL COEFICENTS                                          EMI00310
C        DEC, MODEL YEAR MIX                                             EMI00320
C                                                                        EMI00330
C                                                                        EMI00340
C     THE SUBROUTINE THEN CALCULATES AND PRINTS THE ACELERATION OR       EMI00350
C     DECELERATION, CRUISE, EXCESS ACEL. OR DECEL. AND IDLE EMISSIONS    EMI00360
C     FOR EACH POLLUTANT AND VELOCITY - ACELERATION PAIR.  THERE ARE     EMI00370
C     TWO VELOCITY - ACELERATION PAIRS FOR EACH INTERSECTION.            EMI00380
C     SUBROUTINE ESUP IS CALLED.                                         EMI00390
C                                                                        EMI00400
C
```

```
C
C
C     ..................................................................
C
      REAL*8 COEF(20,4,12),POLUT(8)/' HYDROCA','RBONS  ',' CARBON ',
     *'MONOXIDE',' CARBON ','DIOXIDE ',' NITROGE','N OXIDES'/,
     &DETER(20,4),DEC(20),EMAD(4),EMCRUZ(4),EMIDLE(4),V,A,T
      REAL IDL77,IDLFTR
      DIMENSION VEL(14),ACC(14)
      EMQ=0.
      EMQC=0.
      EMI=0.
      EMC=0.
      IF(ITIME.NE.0) GO TO 1
C
C     READ INPUT DATA IF FIRST TIME THROUGH (WHEN ITIME EQUALS ZERO)
C
C     READ AND PRINT CO IDLE EMISSION FACTORS
C
C
      READ (5,250) IDL77,IDLFTR
  250 FORMAT(2F10.0)
      RATIO=IDLFTR/IDL77
C
C     SECOND, READ 20 DETERIORATION FACTORS FOR EACH POLLUTANT
C
      DO 301 I1=1,20
      READ(5,300)(DETER(I1,IC),IC=1,4)
  300 FORMAT(4F10.0)
  301 CONTINUE
C
C
      WRITE (6,306)
  306 FORMAT('1DETERIORATION FACTORS, MODEL YEAR (DOWN) BY POLLUTANT (AC
     *CROSS)'///)
      WRITE(6,307)((DETER(I1,IC),IC=1,4),I1=1,20)
  307 FORMAT(20(/1X,4F15.5))
C
C     NOW READ THE MODAL MODEL COEFFICIENTS FOR 18 MODEL YEARS
```

EMI00410 EMI00420 EMI00430 EMI00440 EMI00450 EMI00460 EMI00470 EMI00480 EMI00490 EMI00500 EMI00510 EMI00520 EMI00530 EMI00540 EMI00550 EMI00560 EMI00570 EMI00580 EMI00590 EMI00600 EMI00610 EMI00620 EMI00630 EMI00640 EMI00650 EMI00660 EMI00670 EMI00680 EMI00690 EMI00700 EMI00710 EMI00720 EMI00730 EMI00740 EMI00750 EMI00760 EMI00770 EMI00780 EMI00790 EMI00800

```
C                                                                       EMI00810
      DO 320 I1=1,18                                                    EMI00820
      DO 320 IC=1,4                                                     EMI00830
      DO 320 IM=1,7                                                     EMI00840
      IEL=(IM-1)*4+1                                                    EMI00850
      IEH=(IM-1)*4+4                                                    EMI00860
      READ(5,315)(COEF(I1,IC,IE),IE=IEL,IEH)                           EMI00870
  315 FORMAT(10X,4F15.8)                                                EMI00880
  320 CONTINUE                                                          EMI00890
C                                                                       EMI00900
C     ASSUME THE 1977 IN 1977 AND THE 1976 IN 1976 MODAL COEFFICIENTS   EMI00910
C     TO BE THE SAME AS THE 1975 COEFFICIENTS IN 1975                   EMI00920
C                                                                       EMI00930
      DO 325 IC=1,4                                                     EMI00940
      DO 325 IE=1,12                                                    EMI00950
      DO 325 I1=19,20                                                   EMI00960
      COEF(I1,IC,IE)=COEF(18,IC,IE)                                     EMI00970
  325 CONTINUE                                                          EMI00980
      WRITE (6,326)                                                     EMI00990
  326 FORMAT('1MODAL MODEL COEFFICIENTS FOR CO - AS INPUT')             EMI01000
      WRITE (6,327)((COEF(I1,2,IE),IE=1,12),I1=1,20)                    EMI01010
  327 FORMAT(240(1X,4E15.8/))                                           EMI01020
C                                                                       EMI01030
C                                                                       EMI01040
C     DETERIORATE 1975 COEFFICIENTS TO 1977                             EMI01050
C                                                                       EMI01060
      DO 330 IC=1,4                                                     EMI01070
      DO 330 IE=1,12                                                    EMI01080
      DO 330 I1=1,20                                                    EMI01090
      COEF(I1,IC,IE)=COEF(I1,IC,IE)*DETER(I1,IC)                        EMI01100
  330 CONTINUE                                                          EMI01110
      WRITE (6,328)                                                     EMI01120
  328 FORMAT('1 MODAL MODEL COEFFICIENTS FOR CO - AFTER APPLICATION OF DEMI01130
     &TERORIATION')                                                     EMI01140
      WRITE (6,327)((COEF(I1,2,IE),IE=1,12),I1=1,20)                    EMI01150
C                                                                       EMI01160
C     READ DEC, THE MODEL YEAR MIX                                      EMI01170
C                                                                       EMI01180
  385 CONTINUE                                                          EMI01190
      READ(5,103)(DEC(KK),KK=1,20)                                      EMI01200
```

```
  103 FORMAT(10F5.0/10F5.0)                                                  EMI01210
      WRITE (6,104)(DEC(KK),KK=1,20)                                         EMI01220
  104 FORMAT('1MODEL YEAR MIX'//20(1X,F15.8/))                               EMI01230
C                                                                            EMI01240
C     SKIP TO HERE IF ITIME NE TO 0, THAT IS INPUT DATA HAS BEEN READ        EMI01250
C                                                                            EMI01260
C     READ A VELOCITY - ACCELERATION PAIR, CALL ESUM, AND PRINT              EMI01270
C     EMISSIONS.  THIS IS DONE TWICE EACH TIME SUBROUTINE EMIS IS            EMI01280
C     CALLED - THAT IS TWICE FOR EACH INTERSECTION.                          EMI01290
C                                                                            EMI01300
    1 DO 100 INX=1,2                                                         EMI01310
      V=DBLE(VEL(IT))                                                        EMI01320
      A=DBLE(ACC(IT))                                                        EMI01330
      CALL ESUM(V,A,COEF,EMAD,EMCRUZ,DEC,T,EMIDLE)                           EMI01340
      T1=SNGL(T)                                                             EMI01350
      IPAGE=2-INX                                                            EMI01360
      WRITE (6,503) IPAGE,VEL(IT),ACC(IT)                                    EMI01370
  503 FORMAT(1I,'LDV STABILIZED EMISSION RATES: SPEED=',F5.2,10X,'ACCELE EMI01380
     &RATION=',F5.2)                                                         EMI01390
      DO 13 I=1,4                                                            EMI01400
      E1=SNGL(EMCRUZ(I))*T1/2.0                                              EMI01410
      E2=SNGL(EMAD(I))-E1                                                    EMI01420
      E3=SNGL(EMIDLE(I))                                                     EMI01430
   13 WRITE(6,504) POLUT(2*I-1),POLUT(2*I),EMAD(I),E1,E2,E3                  EMI01440
  504 FORMAT (2A8,4(F10.5,10X))                                              EMI01450
      WRITE(6,505)                                                           EMI01460
  505 FORMAT(1HO,15X,'ACEL/DECEL',10X,'  CRUISE  ',10X,'EXCESS A/D',10X,EMI01470
     *'   IDLE'/16X,'(   G/VEH  ',10X),' G/VEH*SEC')                        EMI01480
      E1=SNGL(EMCRUZ(2))*T1*FACTOR/2.0                                       EMI01490
      E2=SNGL(EMAD(2))*RATIO-E1                                              EMI01500
      E3=(EMIDLE(2))*RATIO                                                   EMI01510
      EMQ=EMQ+E2                                                             EMI01520
      EMQC=E1+EMQC                                                           EMI01530
      EMI=E3                                                                 EMI01540
      EMC=SNGL(EMCRUZ(2))                                                    EMI01550
      IT=IT+1                                                                EMI01560
  100 CONTINUE                                                               EMI01570
      EMC=EMC*FACTOR                                                         EMI01580
      EMI8=IDLFTR                                                            EMI01590
      WRITE (6,700) EMQ,EMC,EMI,EMI8                                         EMI01600
```

```
700 FORMAT (////' TOTAL CO EMISSION RATES FOR DESIRED SCENARIO'/'0EXCEEMI01610
   &SS EMISSIONS    =',F8.5,' G/VEH'/' CRUISE EMISSIONS    =',F8.5,' G/VEMI01620
   &EH SEC'/' MM IDLE EMISSIONS  =',F8.5,' G/VEH SEC'/' SUP8 IDLE EMISEMI01630
   &SIONS=',F8.5,' G/VEH SEC'///)                                      EMI01640
    EMI=EMI8                                                           EMI01650
999 CONTINUE                                                           EMI01660
    RETURN                                                             EMI01670
    END                                                                EMI01680
```

```
      SUBROUTINE FSUM(V,A,BAD,EMAD,EMCRUZ,DEC,T1,EMIDLE)                ESU00010
C                                                                       ESU00020
C     ..................................................................ESU00030
C                                                                       ESU00040
C     SUBROUTINE EMISSIONS CALCULATION AND SUMMATION OVER MODEL YEAR    ESU00050
C                                                                       ESU00060
C     INPUT VARIABLES:                                                  ESU00070
C        V, VELOCITY (MILES PER HOUR)                                   ESU00080
C        A, ACCELERATION (MILES PER HOUR PER SECOND)                    ESU00090
C        BAD, MODAL COEFFICIENTS - MODEL YEAR BY POLLUTANT BY TERM      ESU00100
C        DEC, MODEL YEAR MIX                                            ESU00110
C                                                                       ESU00120
C     OUTPUT VARIABLES:                                                 ESU00130
C        EMAD, ACCELERATION OR DECELERATION EMISSIONS (G/VEH)           ESU00140
C        EMCRUZ, CRUISE EMISSIONS (GRAM PER VEHICLE PER SECOND)         ESU00150
C        T1, TIME FOR ACCELERATION OR DECELERATION (SECONDS)            ESU00160
C        EMIDLE, IDLE EMISSIONS (GRAMS/VEHICLE/SECOND)                  ESU00170
C                                                                       ESU00180
C     THE SUBROUTINE CALCULATES ACELERATION OR DECELERATION EMISSIONS,  ESU00190
C     CRUISE EMISSIONS, AND IDLE EMISSIONS.  THE ACELERATION OR DECEL-  ESU00200
C     ERATION EMISSIONS ARE CALCULATED FROM AN INTEGRATION OVER TIME OF ESU00210
C     THE MODAL MODEL EQUATION FOR INSTANTANEOUS EMISSIONS, ASSUMING A  ESU00220
C     CONSTANT ACELERATION OR DECELERATION (INPUT) FROM OR TO THE       ESU00230
C     INITIAL OR TERMINAL VELOCITY (INPUT).  CRUISE EMISSIONS ARE       ESU00240
C     CALCULATED FOR THE INITIAL OR TERMINAL VELOCITY.                  ESU00250
C                                                                       ESU00260
C                                                                       ESU00270
C     ..................................................................ESU00280
C                                                                       ESU00290
      REAL*8 EMAD(4),EMCRUZ(4),DEC(20),EMIDLE(4),T1                     ESU00300
      REAL*8 BAD(20,4,12),X(12),XC(3),AMIN,AMAX,A1,A2,HOA,SOA,V,A,T     ESU00310
      AMAX=1.0D0                                                        ESU00320
      AMIN=-1.2D0                                                       ESU00330
      A1=-1.0D0/AMIN                                                    ESU00340
      A2=-1.0D0/AMAX                                                    ESU00350
      DO 3001 IC=1,4                                                    ESU00360
      EMAD(IC)=0.0D0                                                    ESU00370
      EMIDLE(IC)=0.0D0                                                  ESU00380
 3001 EMCRUZ(IC)=0.0D0                                                  ESU00390
      T=DABS(V/A)                                                       ESU00400
```

```
      T1=T                                                              ESU00410
      X(1)=T                                                            ESU00420
      X(2)=A*T*T/2.0D0                                                  ESU00430
      X(3)=A*T                                                          ESU00440
      X(4)=(A**2)*(T**2)/2.0D0                                          ESU00450
      X(5)=(A**2)*(T**3)/3.0D0                                          ESU00460
      X(6)=(A**2)*T                                                     ESU00470
      X(8)=(A**3)*(T**3)/3.0D0                                          ESU00480
      X(7)=(A**3)*(T**2)/2.0D0                                          ESU00490
      X(9)=(A**4)*(T**3)/3.0D0                                          ESU00500
      X(10)=X(1)                                                        ESU00510
      X(11)=X(2)                                                        ESU00520
      X(12)=X(5)                                                        ESU00530
      XC(1)=1.0D0                                                       ESU00540
      XC(2)=V                                                           ESU00550
      XC(3)=V*V                                                         ESU00560
      IF(A.GE.AMAX) HOA=0.0D0                                           ESU00570
      IF(A.LE.AMIN) HOA=0.0D0                                           ESU00580
      IF(A.GE.0.0D0.AND.A.LT.AMAX) HOA=(A2*A)+1.0D0                     ESU00590
      IF(A.LE.0.0D0.AND.A.GT.AMIN) HOA=(A1*A)+1.0D0                     ESU00600
      SOA=1.0D0-HOA                                                     ESU00610
      DO 3551 I1=1,20                                                   ESU00620
      IF(DEC(I1).EQ.0.0) GO TO 3551                                     ESU00630
      DO 2999 IC=1,4                                                    ESU00640
      DO 3000 IE=1,12                                                   ESU00650
      IF(IE.GT.9) GO TO 2997                                            ESU00660
      IF(A.LT.0.0.AND.IE.EQ.2) GO TO 2996                               ESU00670
      IF(A.LT.0.0.AND.IE.EQ.4) GO TO 2996                               ESU00680
      IF(A.LT.0.0.AND.IE.EQ.7) GO TO 2996                               ESU00690
      EMAD(IC)=EMAD(IC)+X(IE)*SOA*BAD(I1,IC,IE)*DEC(I1)                 ESU00700
      GO TO 2998                                                        ESU00710
 2996 EMAD(IC)=EMAD(IC)-X(IE)*SOA*BAD(I1,IC,IE)*DEC(I1)                 ESU00720
      GO TO 2998                                                        ESU00730
 2997 CONTINUE                                                          ESU00740
      EMCRUZ(IC)=EMCRUZ(IC)+XC(IE-9)*BAD(I1,IC,IE)*DEC(I1)              ESU00750
      IF (A.LT.0.).AND.IE.EQ.11) GO TO 2995                             ESU00760
      EMAD(IC)=EMAD(IC)+X(IE)*BAD(I1,IC,IE)*DEC(I1)*HOA                 ESU00770
      GO TO 2998                                                        ESU00780
 2995 EMAD(IC)=EMAD(IC)-X(IE)*BAD(I1,IC,IE)*DEC(I1)*HOA                 ESU00790
 2998 CONTINUE                                                          ESU00800
```

```
3000 CONTINUE                                                          ESU00810
     EMIDLE(IC)=EMIDLE(IC)+XC(1)*PAD(IT,IC,10)*DEC(I1)                 ESU00820
2999 CONTINUE                                                          ESU00830
3551 CONTINUE                                                          ESU00840
     RETURN                                                            ESU00850
     END                                                               ESU00860
```

```
      SUBROUTINE TRFOUT(A)                                                    TRF00010
      DIMENSION A(18,19)                                                      TRF00020
      DO 1 J=1,14                                                             TRF00030
      M=14-J+1                                                                TRF00040
      N=M*100                                                                 TRF00050
    1 WRITE(6,10) N,(A(I,M),I=1,14)                                           TRF00060
      WRITE(6,11)                                                             TRF00070
   10 FORMAT(1H0,I4,1X,'+',14(F7.2,1X))                                       TRF00080
   11 FORMAT(1H0,10X,'+',13(7X,'+'),//,9X,' 100     200     300     ',       TRF00090
     1'400     500     600     700     800     900     1000    ',            TRF00100
     2'1100    1200    1300    1400')                                         TRF00110
      RETURN                                                                  TRF00120
      END                                                                     TRF00130
```

```
@ELT,L  NOSIGDATA
ELT007 SL73R1 07/25/79 14:16:30 (1,)
000001      000      2    7
000002      000    15.0-2.5        1.0
000003      000    15.0 2.5        1.0
000004      000    20.0-2.5        1.0
000005      000    20.0 2.5        1.0
000006      000    25.0-2.5        1.0
000007      000    25.0 2.5        1.0
000008      000    30.0-2.5        1.0
000009      000    30.0 2.5        1.0
000010      000    35.0-2.5        1.0
000011      000    35.0 2.5        1.0
000012      000    40.0-2.5        1.0
000013      000    40.0 2.5        1.0
000014      000    45.0-2.5        1.0
000015      000    45.0 2.5        1.0
000016      000       .41950     .41950
000017      000        1.378      1.146      1.000      1.000
000018      000        1.435      1.214      1.000      1.000
000019      000        1.680      1.558      1.000      1.000
000020      000        1.703      1.671      1.000      1.000
000021      000        1.746      1.708      1.000      1.000
000022      000        1.876      1.824      1.000      1.000
000023      000        2.115      2.033      1.000      1.000
000024      000        1.597      1.312      1.000      1.000
000025      000        1.573      1.290      1.000      1.000
000026      000        1.681      1.327      1.000      1.000
000027      000        1.772      1.351      1.000      1.000
000028      000        1.450      1.218      1.000      1.000
000029      000        1.485      1.217      1.000      1.000
000030      000        1.654      1.497      1.000      1.000
000031      000        1.733      1.524      1.000      1.000
000032      000        1.594      1.558      1.000      1.000
000033      000        1.631      1.584      1.000      1.000
000034      000        1.426      1.339      1.000      1.084
000035      000        1.180      1.144      1.000      1.036
000036      000        0.953      0.963      1.000      0.991
000037      000      1     1 0.90408921E-01-0.43798499E-02 0.46575181E-02 0.46570692E-03
000038      000      1     1 0.92166778E-04-0.11397827E-01 0.13474836E-02-0.36643314E-05
000039      000      1     1-0.22224063E-04 0.30548215E-01-0.22557352E-03 0.16962629E-04
000040      000      1     2 0.10210419E+01-0.46106476E-01 0.12750413E-01 0.19804664E-01
000041      000      1     2 0.10487151E-02-0.15174127E+00 0.19398060E-01-0.79918522E-04
000042      000      1     2-0.27256622E-03 0.33066291E+00-0.24132896E-02 0.32060244E-03
000043      000      1     3 0.71484953E+00 0.15362855E-01 0.87663889E-01 0.14564995E-01
000044      000      1     3 0.45786635E-03 0.13243157E-01 0.31411450E-02 0.84506202E-04
000045      000      1     3-0.12923865E-05 0.86623710E+00 0.10729667E-01 0.12485683E-02
000046      000      1     4-0.35480408E-02 0.58063143E-03 0.10358056E-02-0.45612847E-04
000047      000      1     4 0.47222775E-05 0.21175048E-02-0.18792201E-03 0.31752579E-05
000048      000      1     4 0.33967408E-05 0.30701563E-02-0.31551067E-03 0.23013577E-04
000049      000      2     1 0.74031651E-01-0.30712544E-02 0.60856193E-02 0.21202014E-03
000050      000      2     1 0.57630212E-04-0.73382109E-02 0.88895089E-03-0.11810998E-05
000051      000      2     1-0.14498754E-04 0.27507048E-01-0.28579007E-03 0.14516227E-04
000052      000      2     2 0.63576120E+00-0.24510358E-01 0.43812852E-01 0.49628541E-02
000053      000      2     2 0.44958130E-03-0.47973134E-01 0.61538182E-02 0.10994070E-04
000054      000      2     2-0.67511966E-04 0.30338836E+00-0.27355787E-02 0.13473761E-03
000055      000      2     3 0.12463460E+01 0.24310540E-01 0.10674191E+00 0.33634592E-01
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000056  000       2    3 0.52991475E-03 0.30546652E-02 0.77637769E-02 0.10368174E-03
000057  000       2    3-0.32426619E-04 0.90210754E+00 0.12757938E-01 0.13337550E-02
000058  000       2    4 0.50182119E-02 0.17176081E-03 0.53202268E-03 0.37671579E-03
000059  000       2    4 0.22066158E-04-0.32121711E-03 0.16474385E-03 0.30790188E-05
000060  000       2    4-0.23920230E-05 0.35156019E-02-0.47130720E-03 0.32509648E-04
000061  000       3    1 0.27212832E-01-0.38454239E-03 0.23166770E-02 0.44772075E-03
000062  000       3    1 0.15004128E-04-0.76230941E-03 0.21233164E-03-0.50537274E-05
000063  000       3    1-0.34107507E-05 0.18768396E-01 0.22212604E-03 0.27737669E-05
000064  000       3    2 0.28043038E+00-0.47583580E-02 0.43524541E-01 0.13808063E-02
000065  000       3    2 0.10754808E-03-0.21531656E-02 0.93090301E-03 0.11250070E-04
000066  000       3    2-0.19257021E-05 0.22921783E+00-0.40214434E-02 0.12248126E-03
000067  000       3    3 0.19142990E+01 0.18390798E-02 0.18897372E+00 0.23611151E-01
000068  000       3    3 0.11209029E-02-0.65214396E-01 0.14079195E-01 0.18680211E-03
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000252   000   18    4-0.84000003E-05 0.26507999E-02-0.35370002E-03 0.23400004E-04
000253   000   0.0 .071  0.0 .032 .047 .063 .079  0.0  0.0  0.0
000254   000   0.0  0.0  0.0  0.0  0.0 .094 .229 .130 .143 .112

END ELT.

@-RKPT PRINT$
```

$TIME
TIME=2.00

JULY 25, 1979 14:16:54 19.657 SECONDS TOTAL 1 MINUTES ELAPSED TIME

CPU:	0.115	I/O:	2.514
CCP'S:	17.024	WAIT:	0.015
AVE CORE:	6150		

$GET NOSIGREV

TOTAL QUEUE LENGTH. VEHICLES

1400 +	3.27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	1.88	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	1.24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	.91	22.12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1000 +	.70	4.64	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
900 +	.55	2.45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
800 +	.44	1.59	11.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
700 +	.36	1.15	4.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
600 +	.30	.87	2.32	13.54	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
500 +	.25	.69	1.57	4.41	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
400 +	.22	.56	1.16	2.52	8.55	.00	.00	.00	.00	.00	.00	.00	.00	.00
300 +	.19	.46	.90	1.72	3.76	18.13	.00	.00	.00	.00	.00	.00	.00	.00
200 +	.16	.39	.72	1.27	2.33	5.23	47.41	.00	.00	.00	.00	.00	.00	.00
100 +	.14	.32	.60	.99	1.65	2.95	6.75	216.18	.00	.00	.00	.00	.00	.00
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

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TOTAL DELAY, SECONDS

1400 +	50.23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	44.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	25.36	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	15.74	390.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1000 +	10.35	63.74	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
900 +	7.03	31.27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
800 +	4.91	17.64	130.55	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
700 +	3.50	11.01	38.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
600 +	2.54	7.30	19.41	113.48	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
500 +	1.85	5.05	11.54	32.34	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
400 +	1.41	3.60	7.49	16.27	55.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
300 +	1.07	2.63	5.12	9.76	21.36	103.11	.00	.00	.00	.00	.00	.00	.00	.00
200 +	.87	1.96	3.64	6.40	11.73	26.33	238.76	.00	.00	.00	.00	.00	.00	.00
100 +	.64	1.49	2.67	4.44	7.37	13.19	30.24	968.33	.00	.00	.00	.00	.00	.00
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

APPROACH CAPACITY, VEHICLES PER HOUR

1400 +	.00	.00	.00	170.56	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1300 +	.00	.00	.00	153.18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 +	.00	.00	.00	179.21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 +	.00	.00	.00	209.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1000 +	.00	.00	.00	243.08	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
900 +	.00	.00	.00	281.73	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
800 +	.00	.00	.00	325.42	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
700 +	.00	.00	.00	374.56	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
600 +	.00	.00	.00	429.54	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
500 +	.00	.00	.00	490.74	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
400 +	.00	.00	.00	558.49	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
300 +	.00	.00	.00	633.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200 +	.00	.00	.00	714.77	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100 +	.00	.00	.00	803.70	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

DETERIORATION FACTORS, MODEL YEAR (DCWN) BY POLLUTANT (ACCFOSS)

1.37500	1.14600	1.00000	1.00000
1.43500	1.21400	1.00000	1.00000
1.68000	1.55800	1.00000	1.00000
1.70700	1.67100	1.00000	1.00000
1.74600	1.70800	1.00000	1.00000
1.97600	1.82400	1.00000	1.00000
2.11500	2.03300	1.00000	1.00000
1.59700	1.21200	1.00000	1.00000
1.57300	1.29000	1.00000	1.00000
1.68100	1.32700	1.00000	1.00000
1.77200	1.35100	1.00000	1.00000
1.45000	1.21800	1.00000	1.00000
1.46500	1.21700	1.00000	1.00000
1.65400	1.49700	1.00000	1.00000
1.73300	1.52400	1.00000	1.00000
1.59400	1.55800	1.00000	1.00000
1.63100	1.58400	1.00000	1.00000
1.42600	1.33500	1.00000	1.05400
1.18500	1.14400	1.00000	1.03600
.95300	.96300	1.00000	.99100

MODAL MODEL COEFFICIENTS FOR CO - AS INPUT

.10210419+01	-.46106476-01	.12750413-01	.19804664-01
.10487151-02	-.15174127+00	.19398060-01	-.79918522-04
-.27254622-03	.33706291+00	-.24132896-02	.32060244-03
.83578120+00	-.24510358-01	.43812852-01	.49628541-02
.44958130-03	-.47973134-01	.61538182-02	.10994070-04
-.67511966-04	.30338836+00	-.27355787-02	.13473761-03
.28043038+00	-.47583580-02	.43524541-01	.13808063-02
.10754805-03	-.21531656-02	.93090301-03	.11250070-04
-.19257071-05	.22921783+00	-.40214434-02	.12248126-03
.49617750+00	-.14627926-01	.61504323-01	-.10729437-02
.21254545-03	-.65023652-02	.97647379-03	.10525829-03
.37405029-04	.26291054+00	-.16189936-02	.84008745-04
.50066710+00	-.17586585-01	.59339337-01	-.18133272-02
.22920808-03	-.12366988-01	.11492474-02	.74215845-04
.14105437-04	.30531263+00	-.70244968-02	.10755237-03
.39664203+00	-.13213880-01	.58552373-01	-.19716325-02
.16135792-03	-.43251987-02	.21359313-03	.86380664-04
.40023762-04	.24617422+00	-.68550445-02	.10254829-03
.36676234+00	-.14121491-01	.65226576-01	-.32857144-02
.18291990-03	.22933292-02	.19562284-04	.13627447-03
.54617223-04	.22517568+00	-.46133965-02	.69841262-04
.16577946+01	-.67509890-01	.62050694-01	.11177700-01
.14054242-02	-.17354452+00	.21822363-01	.12219173-03
-.29136962-03	.30515499+00	-.65815225-02	.36294828-03
.66097568+00	-.48967101-01	.90703070-01	.41544996-02
.97224675-03	-.92593908-01	.13378501-01	.19100340-03
-.13013977-03	.19975567+00	-.77630468-02	.33748685-03
.10886780+01	-.71653783-01	.56213565-01	.12077432-01
.14173663-02	-.17283214+00	.22780791-01	.11450195-03
-.30368124-03	.31737489+00	-.97049810-02	.31322357-03
.12207596+01	-.89525878-01	.95822228-01	.61595142-02
.17752303-02	-.19405907+00	.24501167-01	.30660117-03
-.31120144-03	.30530828+00	-.67905560-02	.22574072-03
.14931040+01	-.10349673+00	.72227300-02	.59160900-02
.20053600-02	-.23721019+00	.26225590-01	.23920000-04
-.39850000-03	.32877001+00	-.91728700-02	.29820000-03
.11040086+01	-.79453880-01	.56303190-01	.17077200-02
.10181600-02	-.17064409+00	.19803410-01	.20100000-03
-.26382000-03	.25955978+00	-.75569700-02	.26727000-03
.28852572+00	-.12315690-01	.92407860-01	-.31505000-02
.16614000-03	.70702200-02	.46436000-03	.14813000-03
.56590000-04	.15976294+00	-.65233000-02	.10359000-03
.20974290+00	-.12846910-01	.96859620-01	-.66359300-02
.13599000-03	.21924630-01	-.15685900-02	.27883000-03
.12293000-03	.11387944+00	-.28685800-02	.47190000-04
.57665520+00	-.36277410-01	.21571960-01	.29442400-02
.83650000-03	-.52553430-01	.69414500-02	-.17560000-04
-.94470000-04	.25530096+00	-.76948500-02	.13531000-03
.54005560+00	-.39594090-01	.28321180-01	.14426300-02
.79014000-03	-.57096950-01	.73297800-02	.53550000-04
-.85880000-04	.20601981+00	-.56017900-02	.85580000-04
.21579521+00	-.12577798-01	.51477298-01	-.23425999-02
.16780000-03	-.15755999-02	.28229994-03	.12529999-03
.85500006-04	.11655778+00	-.44298988-02	.69899994-04
.21578521+00	-.12577798-01	.51477298-01	-.23425999-02
.16780000-03	-.15755999-02	.28229994-03	.12529999-03

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.4250000E-04	.11655778+00	-.46298988-02	.69899994-04
.21575521+00	-.12577798-01	.51477298-01	-.23425999-02
.16780006-03	-.15755999-02	.28229994-03	.12529999-03
.4250000E-04	.11655778+00	-.46298988-02	.69899994-04

MODAL MODEL COEFFICIENTS FOR CO - AFTER APPLICATION OF DETERORIATION

.11701140+01	-.52838021-01	.14611973-01	.22696145-01
.12018275-02	-.17389550+00	.22230177-01	-.91586626-04
-.31236085-03	.37893969+00	-.27656299-02	.36741040-03
.77181410+00	-.29755575-01	.53188802-01	.60249049-02
.54579170-03	-.58239385-01	.74707353-02	.13346801-04
-.81959527-04	.36831347+00	-.33209925-02	.16357146-03
.43691053+00	-.74135218-02	.67811235-01	.21512962-02
.16755991-03	-.33546320-02	.14503469-02	.17527609-04
-.30002454-05	.35712138+00	-.62654088-02	.19082580-03
.82904576+00	-.24443264-01	.10277372+00	-.17928889-02
.35516345-03	-.11366752-01	.16316877-02	.17588659-03
.62503803-04	.43932351+00	-.30395383-02	.14037861-03
.85513941+00	-.30037887-01	.10135159+00	-.30971629-02
.39148740-03	-.21126232-01	.19629146-02	.12676066-03
.24097210-04	.52147397+00	-.11997841-01	.18421356-03
.72347506+00	-.24102117-01	.10679953+00	-.35962577-02
.29431685-03	-.78891442-02	.38957563-03	.15755833-03
.73003342-04	.44902178+00	-.12503601-01	.18704808-03
.74562784+00	-.28708991-01	.13870463+00	-.66798574-02
.37187616-03	.46623383-02	.39696935-04	.27704600-03
.11103681-03	.45778216+00	-.93790412-02	.14198729-03
.13878265+01	-.88572976-01	.81410773-01	.14665142-01
.18439166-02	-.22769042+00	.28630940-01	.16031555-03
-.36227694-03	.40036991+00	-.86349575-02	.47618814-03
.87840703+00	-.63167560-01	.11700696+00	.53593045-02
.12541983-02	-.11944614+00	.17258266-01	.24639439-03
-.16784160-03	.25768481+00	-.10014330-01	.43535804-03
.14448217+01	-.95084570-01	.74595401-01	.16026752-01
.18808451-02	-.24261958+00	.30230110-01	.15194409-03
-.40298501-03	.42115648+00	-.12878510-01	.41564768-03
.16492408+01	-.12094946+00	.12945718+00	.83215037-02
.23983361-02	-.26217380+00	.33101077-01	.41421818-03
-.42043315-03	.41247149+00	-.91740412-02	.30497571-03
.18186007+01	-.12605902+00	.87972851-02	.72057976-02
.24425285-02	-.28892201+00	.31942769-01	.29134560-04
-.48537300-03	.40044187+00	-.11172556-01	.36320760-03
.13435785+01	-.96695372-01	.68520982-01	.20782952-02
.19693007-02	-.20767386+00	.24100750-01	.24461700-03
-.32106894-03	.31588304+00	-.92455125-02	.32526759-03
.43193797+00	-.18436588-01	.13833457+00	-.47162985-02
.24871158-03	.10584119-01	.69514692-03	.22175061-03
.84715230-04	.23916512+00	-.97653801-02	.15507423-03
.31964818+00	-.19581739-01	.14761406+00	-.10113157-01
.28344876-03	.33413136-01	-.23905312-02	.42493692-03
.18734532-03	.17355227+00	-.43717159-02	.71917560-04
.89842880+00	-.56520205-01	.33609114-01	.45871259-02
.99166700-03	-.82345644-01	.10814779-01	-.27356480-04
-.14718426-03	.39775890+00	-.11988576-01	.21081298-03
.85544807+00	-.62717039-01	.44860749-01	.22851259-02
.11090218-02	-.90441569-01	.11610372-01	.84823200-04
-.13603392-03	.32633380+00	-.91900354-02	.13555872-03
.28893640+00	-.16641672-01	.66928102-01	-.31367413-02
.22468420-03	-.21097283-02	.37799962-03	.16777669-03
.64941508-04	.15607087+00	-.61994345-02	.93596092-04
.24685828+00	-.14389001-01	.58890029-01	-.26799343-02
.19196320-03	-.18024063-02	.32295113-03	.14334319-03

.55484007-04	.17334210+00	-.52966042-02	.79965593-04
.20780116+00	-.12112419-01	.49572638-01	-.22559237-02
.16159140-03	-.15173027-02	.27185494-03	.12066389-03
.46705506-04	.11224514+00	-.44585925-02	.67313694-04

MODEL YEAR MIX

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LDV STABILIZED EMISSION RATES: SPEED=15.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.05928	.04538	.05360	.01711
CARBON MONOXIDE	1.03217	.61986	.61228	.29322
CARBON DIOXIDE	8.70267	5.85563	2.84724	1.46030
NITROGEN OXIDES	-.01047	.01092	-.01138	.00356

LDV STABILIZED EMISSION RATES: SPEED=15.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.20873	.04538	.16335	.01711
CARBON MONOXIDE	3.33268	.61986	2.71283	.29322
CARBON DIOXIDE	19.60932	5.85563	13.75369	1.46030
NITROGEN OXIDES	.09677	.01092	.08585	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS = 3.32511 G/VEH
CRUISE EMISSIONS = .20662 G/VEH SEC
VM IDLE EMISSIONS = .29322 G/VEH SEC
SUPP IDLE EMISSIONS= .41950 G/VEH SEC

QUEUE & CRUISE COMPONENT, GRAMS/METER*SECOND,AND QUEUE LENGTH. THE CRUISE SPEED IS 15. MPH.

1400 +	.02945	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00344	.00430	.00517	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 +	.01604	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00344	.00430	.00517	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.01055	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00344	.00430	.00517	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.00777	.05160	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00039	.00258	.00344	.00430	.00517	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	176.9	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.00615	.04640	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00344	.00430	.00517	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.00522	.02456	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00344	.00430	.00517	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.00460	.01662	.05237	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00106	.00344	.00430	.00517	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	84.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
700 +	.00419	.01376	.04331	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00344	.00430	.00517	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
600 +	.00391	.01159	.02647	.05351	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00127	.00430	.00517	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	108.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
500 +	.00372	.00929	.01959	.05036	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00344	.00430	.00517	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
400 +	.00358	.00744	.01605	.03164	.05622	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00344	.00252	.00517	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	40.0	68.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
300 +	.00345	.00787	.01399	.02405	.04697	.05494	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00344	.00430	.00142	.00603	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	40.0	40.0	145.1	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
200 +	.00341	.00749	.01269	.02014	.03293	.06221	.05769	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00344	.00430	.00494	.00064	.00689	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	40.0	40.0	41.8	379.2	40.0	40.0	40.0	40.0	40.0	40.0	40.0
100 +	.00334	.00720	.01184	.01785	.02659	.04208	.06211	.05278	.00000	.00000	.00000	.00000	.00000	.00000
	.00086	.00172	.00258	.00344	.00430	.00517	.00446	.00016	.00775	.00861	.00947	.01033	.01119	.01205
	40.0	40.0	40.0	40.0	40.0	40.0	54.0	1729.4	40.0	40.0	40.0	40.0	40.0	40.0

```
+         +         +         +         +         +         +         +         +         +         +         +         +         +         +
100       200       300       400       500       600       700       800       900       1000      1100      1200      1300      1400
```

LDV STABILIZED EMISSION RATES: SPEED=20.00 ACCELERATION=-2.50

HYDROCARBONS	.14718	.06142	.08576	.01711
CARBON MONOXIDE	1.44701	.76292	.88409	.29322
CARBON DIOXIDE	12.28064	9.04088	7.23976	1.46030
NITROGEN OXIDES	.01057	.02715	-.01657	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=20.00 ACCELERATION= 2.50

HYDROCARBONS	.30490	.06142	.24348	.01711
CARBON MONOXIDE	4.65892	.76292	3.89600	.29322
CARBON DIOXIDE	30.90595	9.04088	21.86507	1.46030
NITROGEN OXIDES	.20029	.02715	.17314	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS = 4.76009 G/VEH
CRUISE EMISSIONS = .19073 G/VEH SEC
*M IDLE EMISSIONS = .29322 G/VEH SEC
SUPP IDLE EMISSIONS= .41950 G/VEH SEC

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QUEUE & CRUISE COMPONENT, GRAMS/METER-SECOND, AND QUEUE LENGTH. THE CRUISE SPEED IS 20. MPH.

1400 +	.03064	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00424	.00530	.00636	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 +	.03725	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00424	.00530	.00636	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.04177	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00424	.00530	.00636	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.00899	.05215	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00048	.00318	.00424	.00530	.00636	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	176.9	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.00739	.04882	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00424	.00530	.00636	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.00643	.02698	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00424	.00530	.00636	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.00581	.01904	.05351	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00135	.00424	.00530	.00636	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	94.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
700 +	.00540	.01517	.04694	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00424	.00530	.00636	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
600 +	.00512	.01701	.03010	.05530	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00157	.00530	.00636	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	108.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
500 +	.00497	.01170	.02322	.05520	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00424	.00530	.00636	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
400 +	.00478	.01085	.01969	.03647	.05975	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00424	.00310	.00636	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	40.0	68.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
300 +	.00469	.01029	.01761	.02889	.05301	.05694	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00424	.00530	.00175	.00742	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	40.0	40.0	145.1	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
200 +	.00462	.00990	.01632	.02497	.03898	.06915	.05459	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00424	.00530	.00608	.00078	.00848	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	40.0	40.0	41.8	379.2	40.0	40.0	40.0	40.0	40.0	40.0	40.0
100 +	.00456	.00962	.01547	.02269	.03264	.04934	.06838	.05301	.00000	.00000	.00000	.00000	.00000	.00000
	.00106	.00212	.00318	.00424	.00530	.00636	.00549	.00020	.00954	.01060	.01166	.01272	.01377	.01483
	40.0	40.0	40.0	40.0	40.0	40.0	54.0	1729.4	40.0	40.0	40.0	40.0	40.0	40.0

+	+	+	+	+	+	+	+	+	+	+	+	+	+
100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

LDV STABILIZED EMISSION RATES: SPEED=25.00 ACCELERATION=-2.50

	ACCEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.20151	.08012	.12139	.01711
CARBON MONOXIDE	2.09169	.90664	1.18505	.29322
CARBON DIOXIDE	16.14213	13.20402	2.93611	1.46030
NITROGEN OXIDES	.02506	.05749	-.03243	.00356

LDV STABILIZED EMISSION RATES: SPEED=25.00 ACCELERATION= 2.50

	ACCEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.41329	.08012	.33317	.01711
CARBON MONOXIDE	6.21809	.90664	5.31145	.29322
CARBON DIOXIDE	44.49670	13.20402	31.29268	1.46030
NITROGEN OXIDES	.33787	.05749	.28038	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS = 6.49650 G/VEH
CRUISE EMISSIONS = .19133 G/VEH SEC
VM IDLE EMISSIONS = .29322 G/VEH SEC
SUPR IDLE EMISSIONS= .41950 G/VEH SEC

QUEUE & CRUISE COMPONENT, GRAMS/METER-SECOND, AND QUEUE LENGTH. THE CRUISE SPEED IS 25. MPH.

1400 +	.03206	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00630	.00756	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 +	.01964	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00630	.00756	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.01316	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00630	.00756	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.01037	.05279	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00630	.00756	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	176.9	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.00879	.05160	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00630	.00756	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.00782	.02976	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00630	.00756	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.00720	.02182	.05569	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00160	.00504	.00630	.00756	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	64.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
700 +	.00679	.01796	.05111	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00630	.00756	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
600 +	.00651	.01580	.03427	.05736	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00180	.00630	.00756	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	108.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
500 +	.00632	.01445	.02740	.06076	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00630	.00756	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
400 +	.00615	.01364	.02385	.04204	.06362	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00368	.00756	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	40.0	68.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
300 +	.00600	.01307	.02179	.03445	.05997	.05924	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00630	.00208	.00881	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	40.0	40.0	145.1	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
200 +	.00601	.01268	.02050	.03054	.04593	.07713	.05561	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00630	.00723	.00093	.01007	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	40.0	40.0	41.8	379.2	40.0	40.0	40.0	40.0	40.0	40.0	40.0
100 +	.00598	.01241	.01964	.02825	.03960	.05769	.07559	.05326	.00000	.00000	.00000	.00000	.00000	.00000
	.00126	.00252	.00378	.00504	.00630	.00756	.00653	.00023	.01133	.01259	.01385	.01511	.01637	.01763
	40.0	40.0	40.0	40.0	40.0	40.0	54.0	1729.4	40.0	40.0	40.0	40.0	40.0	40.0

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+       +       +       +       +       +       +       +       +       +       +       +       +       +
100     200     300     400     500     600     700     800     900     1000    1100    1200    1300    1400
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LDV STABILIZED EMISSION RATES: SPEED=30.00 ACCELERATION=-2.50

HYDROCARBONS	.26170	.10283	.15887	.01711
CARBON MONOXIDE	2.55285	1.07049	1.51235	.29322
CARBON DIOXIDE	20.25452	18.56179	1.69274	1.46030
NITROGEN OXIDES	.04167	.10662	-.06494	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=30.00 ACCELERATION= 2.50

HYDROCARBONS	.53325	.10283	.43042	.01711
CARBON MONOXIDE	8.08536	1.07049	7.01486	.29322
CARBON DIOXIDE	60.32999	18.56179	41.76821	1.46030
NITROGEN OXIDES	.50854	.10662	.40192	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS = 5.52722 G/VEH
CRUISE EMISSIONS = .17842 G/VEH SEC
XM IDLE EMISSIONS = .29322 G/VEH SEC
TUPE IDLE EMISSIONS= .41950 G/VEH SEC

QUEUE & CRUISE COMPONENT, GRAMS/METER-SECOND, AND QUEUE LENGTH. THE CRUISE SPEED IS 30. MPH.

1400 +	.03360	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00743	.00892	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 +	.02021	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00743	.00892	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.01480	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00743	.00892	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.01201	.05352	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00743	.00892	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	176.9	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.01042	.05469	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00743	.00892	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.00946	.03304	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00743	.00892	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.00884	.02510	.05776	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00186	.00595	.00743	.00892	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	94.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
700 +	.00847	.02123	.05662	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00743	.00892	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
600 +	.00815	.01907	.03919	.05977	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00220	.00743	.00892	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	108.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
500 +	.00784	.01774	.03231	.06732	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00743	.00892	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
400 +	.00752	.01691	.02976	.04859	.06861	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00435	.00892	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	40.0	68.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
300 +	.00722	.01635	.02670	.04101	.06516	.06195	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00743	.00246	.01041	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	40.0	40.0	145.1	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
200 +	.00765	.01596	.02541	.03709	.05412	.08653	.05682	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00743	.00853	.00110	.01189	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	40.0	40.0	41.8	379.2	40.0	40.0	40.0	40.0	40.0	40.0	40.0
100 +	.00759	.01568	.02456	.03481	.04778	.06751	.08408	.05357	.00000	.00000	.00000	.00000	.00000	.00000
	.00149	.00297	.00446	.00595	.00743	.00892	.00771	.00028	.01338	.01487	.01635	.01784	.01933	.02082
	40.0	40.0	40.0	40.0	40.0	40.0	54.0	1729.4	40.0	40.0	40.0	40.0	40.0	40.0

+	+	+	+	+	+	+	+	+	+	+	+	+	+
100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

LDV STABILIZED EMISSION RATES: SPEED=35.00 ACCELERATION=-2.50

HYDROCARBONS	.22714	.13086	.19630	.01711
CARBON MONOXIDE	7.13711	1.27393	1.86318	.29322
CARBON DIOXIDE	24.58500	25.33089	-.74589	1.46030
NITROGEN OXIDES	.05914	.17922	-.12007	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=35.00 ACCELERATION= 2.50

HYDROCARBONS	.66413	.13086	.53327	.01711
CARBON MONOXIDE	10.23587	1.27393	9.06194	.29322
CARBON DIOXIDE	78.35424	25.33089	53.02335	1.46030
NITROGEN OXIDES	.71137	.17922	.53215	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS =10.92512 G/VEH
CRUISE EMISSIONS = 1.27199 G/VEH SEC
HH IDLE EMISSIONS = .29322 G/VEH SEC
SUPE IDLE EMISSIONS= .41950 G/VEH SEC

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QUEUE & CRUISE COMPONENT, GRAMS/METER-SECOND, AND QUEUE LENGTH. THE CRUISE SPEED IS 35. MPH.

1400 +	.03564	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00708	.00885	.01062	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
1300 +	.02223	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00708	.00885	.01062	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
1200 +	.01674	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00708	.00885	.01062	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
1100 +	.01396	.05440	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00080	.00531	.00708	.00885	.01062	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	176.9	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
1000 +	.01237	.05877	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00708	.00885	.01062	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
900 +	.01148	.03693	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00708	.00885	.01062	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
800 +	.01079	.02899	.06023	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00225	.00708	.00885	.01062	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	64.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
700 +	.01038	.02513	.06187	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00708	.00885	.01062	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
600 +	.01010	.02297	.04503	.06265	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00261	.00885	.01062	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	108.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
500 +	.00990	.02165	.03515	.07511	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00708	.00885	.01062	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
400 +	.00977	.02081	.03461	.05638	.07431	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00708	.00517	.01062	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	40.0	68.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
300 +	.00967	.02024	.03254	.04880	.07790	.06518	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00708	.00885	.00293	.01239	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	40.0	40.0	145.1	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
200 +	.00959	.01985	.03125	.04488	.06386	.09771	.05826	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00708	.00885	.01015	.00131	.01415	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	40.0	40.0	41.8	379.2	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
100 +	.00954	.01959	.03040	.04260	.05752	.07920	.09418	.05393	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00177	.00354	.00531	.00708	.00885	.01062	.00917	.00033	.01592	.01769	.01946	.02123	.02300	.02477	
	40.0	40.0	40.0	40.0	40.0	40.0	54.0	1729.4	40.0	40.0	40.0	40.0	40.0	40.0	

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+       +       +       +       +       +       +       +       +       +       +       +       +       +
100     200     300     400     500     600     700     800     900     1000    1100    1200    1300    1400
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LDV STABILIZED EMISSION RATES: SPEED=40.00 ACCELERATION=-2.50

HYDROCARBONS	.39731	.16556	.23175	.01711
CARBON MONOXIDE	3.77115	1.53643	2.23472	.29322
CARBON DIOXIDE	29.10077	33.72807	-4.62730	1.46030
NITROGEN OXIDES	.07614	.27997	-.20383	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=40.00 ACCELERATION= 2.50

HYDROCARBONS	.80530	.16556	.63974	.01711
CARBON MONOXIDE	13.04480	1.53643	11.50837	.29322
CARBON DIOXIDE	98.51787	33.72807	64.78980	1.46030
NITROGEN OXIDES	.64537	.27997	.66542	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS =13.74309 G/VEH
CRUISE EMISSIONS = .19205 G/VEH SEC
HM IDLE EMISSIONS = .29322 G/VEH SEC
SUPR IDLE EMISSIONS= .41950 G/VEH SEC

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QUEUE & CRUISE COMPONENT, GRAMS/METER*SECOND,AND QUEUE LENGTH. THE CRUISE SPEED IS 40. MPH.

1400 +	.03796	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00854	.01067	.01280	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 +	.02455	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00854	.01067	.01280	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.01907	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00854	.01067	.01280	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.01623	.05545	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00896	.00640	.00854	.01067	.01280	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	176.9	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.01467	.06342	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00854	.01067	.01280	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.01373	.04157	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00854	.01067	.01280	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.01311	.03367	.06317	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00271	.00854	.01067	.01280	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	94.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
700 +	.01276	.02977	.06883	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00854	.01067	.01280	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
600 +	.01242	.02761	.05200	.06608	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00315	.01067	.01280	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	108.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
500 +	.01222	.02630	.04512	.06439	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00854	.01067	.01280	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
400 +	.01209	.02545	.04157	.06567	.08110	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00854	.00624	.01280	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	40.0	68.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
300 +	.01199	.02469	.03951	.05809	.08951	.06902	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00854	.01067	.00353	.01494	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	40.0	40.0	145.1	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
200 +	.01192	.02450	.03822	.05417	.07547	.11103	.05998	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00854	.01067	.01225	.00156	.01707	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	40.0	40.0	41.8	379.2	40.0	40.0	40.0	40.0	40.0	40.0	40.0
100 +	.01188	.02427	.03736	.05188	.06913	.09213	.10622	.05436	.00000	.00000	.00000	.00000	.00000	.00000
	.00213	.00427	.00640	.00854	.01067	.01280	.01106	.00039	.01921	.02134	.02347	.02561	.02774	.02988
	40.0	40.0	40.0	40.0	40.0	40.0	54.0	1729.4	40.0	40.0	40.0	40.0	40.0	40.0

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+       +       +       +       +       +       +       +       +       +       +       +       +       +
100     200     300     400     500     600     700     800     900     1000    1100    1200    1300    1400
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LDV STABILIZED EMISSION RATES: SPEED=45.00 ACCELERATION=-2.50

HYDROCARBONS	.47157	.20824	.26333	.01711
CARBON MONOXIDE	4.50154	1.87745	2.62414	.29322
CARBON DIOXIDE	33.76908	43.97004	-10.20104	1.46030
NITROGEN OXIDES	.09139	.41356	-.32217	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=45.00 ACCELERATION= 2.50

HYDROCARBONS	.95610	.20824	.74786	.01711
CARBON MONOXIDE	16.28730	1.87745	14.40985	.29322
CARBON DIOXIDE	120.76928	43.97004	76.79924	1.46030
NITROGEN OXIDES	1.20967	.41356	.79611	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

EXCESS EMISSIONS =17.03400 G/VEH
CRUISE EMISSIONS = .20861 G/VEH SEC
HM IDLE EMISSIONS = .29322 G/VEH SEC
SUPR IDLE EMISSIONS= .41950 G/VEH SEC

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QUEUE & CRUISE COMPONENT. GRAMS/METER*SECOND.AND QUEUE LENGTH. THE CRUISE SPEED IS 45. MPH.

1400 +	.04072	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.01043	.01304	.01565	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1300 +	.02731	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.01043	.01304	.01565	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1200 +	.02152	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.01043	.01304	.01565	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1100 +	.01904	.05670	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00116	.00782	.01043	.01304	.01565	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	176.9	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
1000 +	.01745	.06894	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.01043	.01304	.01565	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
900 +	.01647	.04709	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.01043	.01304	.01565	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
800 +	.01587	.03915	.06669	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00331	.01043	.01304	.01565	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	94.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
700 +	.01546	.03529	.07711	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.01043	.01304	.01565	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
600 +	.01518	.03313	.06027	.07016	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.00385	.01304	.01565	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	108.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
500 +	.01498	.03121	.05339	.09543	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.01043	.01304	.01565	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
400 +	.01485	.03097	.04965	.07670	.08917	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.01043	.00763	.01565	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	40.0	68.4	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
300 +	.01475	.03040	.04779	.06912	.10330	.07358	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.01043	.01304	.00471	.01825	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	40.0	40.0	145.1	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
200 +	.01467	.03001	.04649	.06521	.08926	.12686	.06201	.00000	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.01043	.01304	.01496	.00193	.02086	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	40.0	40.0	41.8	379.2	40.0	40.0	40.0	40.0	40.0	40.0	40.0
100 +	.01462	.02974	.04564	.06292	.08293	.10960	.12053	.05487	.00000	.00000	.00000	.00000	.00000	.00000
	.00261	.00522	.00782	.01043	.01304	.01565	.01352	.00048	.02347	.02608	.02868	.03129	.03390	.03651
	40.0	40.0	40.0	40.0	40.0	40.0	54.0	1729.4	40.0	40.0	40.0	40.0	40.0	40.0

+	+	+	+	+	+	+	+	+	+	+	+	+	+
100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

CRUISE EMISSIONS, GRAMS PER METER-SECOND

15 +	.00086	.00171	.00257	.00342	.00428	.00514	.00599	.00685	.00770	.00856	.00942	.01027	.01113	.01198
20 +	.00059	.00119	.00178	.00237	.00296	.00356	.00415	.00474	.00533	.00593	.00652	.00711	.00770	.00830
25 +	.00045	.00090	.00135	.00180	.00225	.00270	.00315	.00361	.00406	.00451	.00496	.00541	.00586	.00631
30 +	.00037	.00074	.00111	.00148	.00185	.00222	.00259	.00296	.00333	.00370	.00404	.00443	.00480	.00517
35 +	.00032	.00065	.00097	.00129	.00162	.00194	.00226	.00258	.00291	.00323	.00355	.00388	.00420	.00452
40 +	.00030	.00060	.00090	.00119	.00149	.00179	.00209	.00239	.00269	.00299	.00328	.00358	.00388	.00418
45 +	.00029	.00058	.00086	.00115	.00144	.00173	.00202	.00230	.00259	.00288	.00317	.00346	.00374	.00403
	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

NORMAL EXIT. EXECUTION TIME: 5715 MILLISECONDS.

@SKPT PRINTS

APPENDIX E

HOTSPOT (PTHOTSPOT1)*

HOTSPOT was executed using the correction factors from the execution of VEHEMI2. Consequently, the screening curves are for the winter of 1982 to 1983, 20 percent cold starts, 10 percent hot starts, 30°F, and a vehicle mix of 88 percent, 4 percent, 4 percent, 3 percent, 1 percent, and 0 percent. As previously described, the output first echo prints the input data, then prints the results of the emission calculations for each speed, and finally, for each hot spot, prints the critical ADT which represents the screening curve.

*The sample executions contained herein are those that were used to generate the tables and screening curves in Volume I of the Hot Spot Guidelines.[1]

```
C          DATA SET PTHOTSPOT1 AT LEVEL 006 AS OF 01/15/78
C
C     ..................................................................
C
C     PROGRAM HOTSPOT
C
C     PROGRAM TO GENERATE HOT SPOT SCREENING CURVES
C
C     FRANK BENESH
C     GCA/TECHNOLOGY DIVISION
C     BURLINGTON ROAD
C     BEDFORD, MASSACHUSETTS
C     (617) 275-9000
C
C
C
C     INPUT DATA:
C
C        CARD 1  6F10.5,I3,I7
C             XT8HR - DESIRED 8 HOUR CONCENTRATION (SET AT NAAQS)
C             XB8HR - 8 HOUR BACKGROUND CONCENTRATION (MG/M**3)
C             R8TO1 - RATIO OF 8 HOUR CONCENTRATION TO 1 HOUR
C             QMIN - MINIMUM QUEUE LENGTH (METERS)
C             ACC - ACCELERATION (MILES PER HOUR PER SECOND)
C             DEC - DECELERATION (MILES PER HOUR PER SECOND) NEGATIVE!
C             NSPEED - NUMBER OF SPEEDS ON CARDS 4 TO 4 + NSPEED
C             ISPACE - COMPUTATION INTERVAL FOR FREE FLOW TABLES
C        CARD 2   7F10.5
C             TOL - ACCURACY OF TABLES (MG/M**3)
C             SPACE - COMPUTATION INTERVAL, INTERSECTIONS
C             PEAK - PEAK HOUR FACTOR, 1 HOUR TO 24 HOURS ADT
C             GMIN - MINIMUM GREEN TIME (SECONDS)
C             CYMIN - MINIMUM CYCLE TIME (SECONDS)
C             CYMAX - MAXIMUM CYCLE TIME (SECONDS)
C             GAP - MINIMUM HEADWAY FOR CROSSING VEHICLES (SECONDS)
C        CARD 3   2F10.5
C             C1 - LANE CAPACITY, APPROACHES 1 AND 2
C             C2 - LANE CAPACITY - APPROACHES 3 AND 4
C         CARDS 4 THROUGH (4 + NSPEED) 2F10.5
C             SPEED (MILES PER HOUR)  ENTER A SPEED FOR EACH SPEED THAT
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C                WILL BE USED IN THE INTERSECTION TABLES.  IF THE FREEMAI00410
C                FLOW CONFIGURATION WILL BE EMPLOYED, THE FIRST TEN    MAI00420
C                SPEEDS MUST CORRESPPOND TO THE SPEEDS ON LIMITED      MAI00430
C                ACCESS FACILITIES WITH VOLUME CAPACITY RATIOS OF 0.1 MAI00440
C                TO 1.0.  THE TENTH THROUGH THE 13TH SPEEDS MUST ALSO MAI00450
C                CORRESPOND TO V/C 'S ON ARTERIALS OF .LE.6, .EQ.7,   MAI00460
C                .EQ.8, AND .GE.9.                                    MAI00470
C           FACTOR - RATIO OF DESIRED EMISSIONS SCENARIO TO 1977 LDV  MAI00480
C            FACTOR - RATIO OF DESIRED EMISSIONS SCENARIO TO U.MM LDV MAI00490
C                STABILIZED AT THE CORRESPONDING SPEED                MAI00500
C         NEXT CARD     2F10.0                                        MAI00510
C           IDL77 - SUPPLEMENT 8 COMPOSITE IDLE EMISSION FACTOR FOR   MAI00520
C                FOR THE 1977 CALENDER YEAR                           MAI00530
C           IDLFTR - IDLE EMISSION FACTOR FOR DESIRED SCENARIO        MAI00540
C         NEXT 20 CARDS   4F10.0                                       MAI00550
C           DETER - TOTAL DETERIORATION OF MODAL MODEL ESTIMATES      MAI00560
C               ONE CARD FOR EACH MODEL GROUP (18 GROUPS)             MAI00570
C                BY POLLUTANT (HC,CO,CO2,NOX) TO JULY 1977            MAI00580
C         NEXT 216 CARDS 10X,4E15.8                                    MAI00590
C           COEF - MODAL MODEL COEFFICIENTS - EXACTLY SAME AS MODAL   MAI00600
C               MODEL INPUT                                          MAI00610
C         NEXT 2 CARDS   10F5.0                                        MAI00620
C           DEC - VEHICLE MIX PROPORTIONS IN 20 MODEL YEAR GROUPS     MAI00630
C               THE 19TH GROUP = 1976 CARS, THE 20TH = 1977 CARS      MAI00640
C         REPEAT THE NEXT TWO CARDS FOR EACH CONFIGURATION             MAI00650
C         CARD A    20A4                                               MAI00660
C           ANAME - 80 CHARACTER LABEL PRINTED ON THE TOP OF THE PAGE MAI00670
C         CARD B    2I6,10F6.0                                         MAI00680
C           ISIG - DUMMY VARIABLE                                     MAI00690
C                0 MEANS NONSIGNALIZED INTERSECTION                   MAI00700
C                1 MEANS SIGNALIZED INTERSECTION                      MAI00710
C                3 MEANS FREE FLOW CASE, ARTERIAL                     MAI00720
C                4 MEANS FREE FLOW CASE, LIMITED ACCESS               MAI00730
C           IS - SPEED INDEX (INPUT ORDER) LEAVE BLANK FOR FREE FLOW  MAI00740
C           N(1),N(2),N(3),N(4) - NUMBER OF LANES ON EACH APPROACH    MAI00750
C           X(1),X(2) - ROADWAY RECEPTOR SEPERATION, APPROACHES 1 & 2 MAI00760
C           DSPLIT(1),DSPLIT(2),DSPLIT(3),DSPLIT(4) -DIRECTIONAL SPLITMAI00770
C                                                                     MAI00780
C                                                                     MAI00790
                                                                      MAI00800
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C     ..................................................................  MAI00810
C                                                                         MAI00820
C                                                                         MAI00830
      DIMENSION SPEED(20),EMG(20),EMC(20),ANAME(20),N(4),X(2),DSPLIT(4),MAI00840
     &V(4),QEF(4),XQE(4),CDE(4),CDF(2),EM(2),S(2),FACTOR(20)             MAI00850
      REAL LE,PEAK,N                                                     MAI00860
      ERROR=0.0                                                          MAI00870
      NPHASE=2                                                           MAI00880
C                                                                         MAI00890
C                                                                         MAI00900
C     ******************************************************************  MAI00910
C     READ INITIAL VALUES AND PRINT                                       MAI00920
C     ******************************************************************  MAI00930
C                                                                         MAI00940
C                                                                         MAI00950
      READ(5,50) XT8HR,XB8HR,R8TO1,QMIN,ACC,DEC,NSPEED,ISPACE,TOL,SPACE,MAI00960
     &PEAK,GMIN,CYMIN,CYMAX,GAP,C1,C2                                    MAI00970
   50 FORMAT(6F10.5,I3,I7/7F10.5/2F10.5)                                  MAI00980
C                                                                         MAI00990
      XCRIT=(XT8HR-XB8HR)/R8TO1                                          MAI01000
C                                                                         MAI01010
      WRITE(6,51)                                                        MAI01020
   51 FORMAT ('1'/2('0',130('*')//)/'0HOTSPOT'/'0PROGRAM TO GENERATE HOT MAI01030
     *SPOT SCREENING CURVES                '/'0GCA/TECHNOLOGY DIVISION'/MAI01040
     *' BURLINGTON ROAD'/' BEDFORD, MASSACHUSETTS'/' (617) 275-9000'/2('MAI01050
     *0',130('*')//)//)                                                  MAI01060
      WRITE(6,52) XT8HR,XB8HR,R8TO1,XCRIT,QMIN,ACC,DEC,TOL,SPACE,ISPACE,MAI01070
     &PEAK,NSPEED,GMIN,CYMIN,CYMAX,GAP,C1,C2                            MAI01080
   52 FORMAT('08 HOUR CO SPECIFIED              =',F8.3,' MG/M**3'/     MAI01090
     *       ' 8 HOUR CO BACKGROUND             =',F8.3,' MG/M**3'/     MAI01100
     *       ' RATIO OF 8 HOUR TO 1 HOUR        =',F8.3/                MAI01110
     *       ' CRITICAL 1 HOUR CONCENTRATION    =',F8.3,' MG/M**3'/     MAI01120
     *       ' MINIMUM QUEUE LENGTH SPECIFIED   =',F8.3,' METERS'/      MAI01130
     *       ' ACCELERATION SPECIFIED           =',F8.3,' MPH/SEC'/     MAI01140
     *       ' DECELERATION SPECIFIED           =',F8.3,' MPH/SEC'/     MAI01150
     *       ' MINIMUM ACCURACY                 =',F8.3,' MG/M**3'/     MAI01160
     &       ' COMPUTATION INTERVAL, VOLUME     =',F8.3,' VEHICLES/HOUR'/ MAI01170
     &       ' COMPUTATION INTERVAL, CAPACITY   =',I8,' VEHICLES/HOUR'/ MAI01180
     *       ' PEAK HOUR FACTOR                 =',F8.3/                MAI01190
     *       ' NUMBER OF SPEEDS USED            =',I8,' CLASSES'/       MAI01200
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     &       ' MINIMUM GREEN TIME SPECIFIED    =',F8.3,' SECONDS'/                MAI01210
     &       ' MINIMUM CYCLE TIME SPECIFIED    =',F8.3,' SECONDS'/                MAI01220
     &       ' MAXIMUM CYCLE TIME SPECIFIED    =',F8.3,' SECONDS'/                MAI01230
     &       ' MINIMUM HEADWAY GAP SPECIFIED   =',F8.3,' SECONDS'/                MAI01240
     &       ' CAPACITY SERVICE VOLUME (1&2)   =',F8.3,' VEHICLES/HOUR'/          MAI01250
     *2('0',130('*')/))                                                           MAI01260
C                                                                                 MAI01270
C                                                                                 MAI01280
C     SET UP EMISSION RATE - SPEED ARRAYS                                         MAI01290
      DO 76 IS=1,NSPEED                                                           MAI01300
      READ (5,75) SPEED(IS),FACTOR(IS)                                            MAI01310
   75 FORMAT (2X,2F8.5)                                                           MAI01320
   76 CONTINUE                                                                    MAI01330
C                                                                                 MAI01340
      DO 77 IS=1,NSPEED                                                           MAI01350
   77 CALL EMIS(SPEED(IS),ACC,DEC,IS,EMQ(IS),EMI,EMC(IS),FACTOR(IS))             MAI01360
C                                                                                 MAI01370
   79 CONTINUE                                                                    MAI01380
C                                                                                 MAI01390
C                                                                                 MAI01400
C     READ AN INTERSECTION AND SET UP MAIN VOLUMES                                MAI01410
C                                                                                 MAI01420
      READ (5,80,END=2000)(ANAME(I),I=1,20),ISIG,IS,(N(I),I=1,4),X(1),            MAI01430
     *X(2),(DSPLIT(I),I=1,4)                                                      MAI01440
   80 FORMAT(20A4/2I6,10F6.0)                                                     MAI01450
C                                                                                 MAI01460
C                                                                                 MAI01470
C                                                                                 MAI01480
C     IF FREE FLOW MID BLOCK (ISIG.EQ.3.OR.4) GO TO 3000 FOR PROCESSING           MAI01490
C                                                                                 MAI01500
      IF (ISIG.GE.2) GO TO 3000                                                   MAI01510
C                                                                                 MAI01520
C                                                                                 MAI01530
C     ********************************************************************        MAI01540
C     START HERE FOR INTERSECTION CONFIGURATION                                   MAI01550
C     ********************************************************************        MAI01560
C                                                                                 MAI01570
                                                                                  MAI01580
                                                                                  MAI01590
                                                                                  MAI01600
```

```
C     WRITE PAGE HEADER                                                    MAI01610
C                                                                          MAI01620
      WRITE(6,1100)(ANAME(I2),I2=1,20),ISIG,SPEED(IS),(N(I2),I2=1,4),      MAI01630
     &X(1),X(2),(DSPLIT(I2),I2=1,4)                                       MAI01640
      WRITE (6,1103)                                                       MAI01650
C                                                                          MAI01660
C                                                                          MAI01670
C     SET UP DISTANCE CORRECTION FACTORS                                   MAI01680
C                                                                          MAI01690
C                                                                          MAI01700
      DO 85 NI=1,4                                                         MAI01710
   85 IF (N(NI).EQ.0) N(NI)=1.0                                            MAI01720
C                                                                          MAI01730
      CALL DIST(X,ISIG,CDE,CDF)                                            MAI01740
C                                                                          MAI01750
C                                                                          MAI01760
C     LOOP ON SPACE INCREMENT.  FIRST, SET UP MAIN VOLUMES                 MAI01770
C                                                                          MAI01780
C                                                                          MAI01790
      DO 1000 J=1,40                                                       MAI01800
      ADT=J*SPACE                                                          MAI01810
      V(1)=DSPLIT(1)*ADT*PEAK/N(1)                                         MAI01820
      V(2)=DSPLIT(2)*ADT*PEAK/N(2)                                         MAI01830
C                                                                          MAI01840
      ADTINC=10000.0                                                       MAI01850
      ADT2=0.0                                                             MAI01860
C                                                                          MAI01870
C     SET UP CROSS VOLUMES                                                 MAI01880
C                                                                          MAI01890
   90 CONTINUE                                                             MAI01900
      ADT2=ADT2+ADTINC                                                     MAI01910
      V(3)=DSPLIT(3)*ADT2*PEAK/N(3)                                        MAI01920
      V(4)=DSPLIT(4)*ADT2*PEAK/N(4)                                        MAI01930
C                                                                          MAI01940
C     COMPUTE TRIAL CONCENTRATION                                          MAI01950
C                                                                          MAI01960
      CALL QUEUE(ISIG,V,NPHASE,QMIN,CY,DELAY,LE,Q1,G,Q3,GMIN,CYMIN,        MAI01970
     &CYMAX,GAP,C1,C2)                                                    MAI01980
      CALL XQ(LE,N,XQE,XQFM,XQFC)                                          MAI01990
      DO 100 I=1,4                                                         MAI02000
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  100 QEF(I)=(EMC(IS)*V(I)/3600.)/(SPEED(IS)*1609.344/3600.)                MAI02010
      EQUE=EMQ(IS)*Q1/CY                                                    MAI02020
      EI=EMI*DELAY*V(1)/3600.                                               MAI02030
      QE=(EQUE+EI)/LE                                                       MAI02040
      IF (EQUE.LT.0.0.OR.EI.LT.0.0) QE=9999.                                MAI02050
      XE=0.0                                                                MAI02060
      DO 200 I=1,4                                                          MAI02070
  200 XE=(CDE(I)*XQE(I))+XE                                                 MAI02080
      XE=QE*XE                                                              MAI02090
      XFMAIN=XQFM*(N(1)*CDF(1)*QEF(1)+N(2)*CDF(2)*QEF(2))                   MAI02100
      XFCROS=XQFC*(N(3)*QEF(3)+N(4)*QEF(4))                                 MAI02110
      XTRIAL=XE+XFMAIN+XFCROS                                               MAI02120
C                                                                           MAI02130
C                                                                           MAI02140
C     CHECK IF TRIAL CONCENTRATION IS ABOVE THE CRITICAL CONCENTRATION.     MAI02150
C     IF NOT, INCREMENT ADT.  IF ABOVE, SUBTRACT OLD INCREMENT AND          MAI02160
C     ADD A SMALLER INCREMENT UNDER THE TRIAL CONCENTRATION IS WITHIN       MAI02170
C     THE SPECIFIED TOLERANCE OF THE CRITICAL CONCENTRATION                 MAI02180
C                                                                           MAI02190
C                                                                           MAI02200
C                                                                           MAI02210
      IF (ADT2.GE.150000.0) GO TO 600                                       MAI02220
      IF (ADT2.LE.1.0) GO TO 600                                            MAI02230
      IF (XTRIAL.LT.(XCRIT-TOL)) GO TO 90                                   MAI02240
      IF (XTRIAL.LT.(XCRIT+TOL)) GO TO 500                                  MAI02250
      ADT2=ADT2-ADTINC                                                      MAI02260
      ADTINC=ADTINC/10.0                                                    MAI02270
      GO TO 90                                                              MAI02280
C                                                                           MAI02290
C                                                                           MAI02300
C                                                                           MAI02310
  600 ERROR=99999.9                                                         MAI02320
C                                                                           MAI02330
C                                                                           MAI02340
C     WRITE SOLUTION                                                        MAI02350
C                                                                           MAI02360
C                                                                           MAI02370
  500 CONTINUE                                                              MAI02380
      QEFSUM=QEF(1)+QEF(2)+QEF(3)+QEF(4)                                    MAI02390
C                                                                           MAI02400
      WRITE (6,1105) ADT,ADT2,XTRIAL,DELAY,LE,Q3,CY,G,QEFSUM,QF,ERROR
```

```
 1105 FORMAT(1X,2F11.1,F11.6,5F11.4,2F11.8,5X,F6.0/)
C
      ERROR=0.0
      IF(ADT2.LT.1000.0) GO TO 1001
C
C
 1000 CONTINUE
C
C
C     END OF PROCESSING FOR INTERSECTION, PRINT TRAILER HEADING AND GO
C     TO STATEMENT 79 TO READ ANOTHER INTERSECTION CONFIGURATION
C
C
 1001 CONTINUE
C
      WRITE (6,1103)
 1100 FORMAT('1',20A4/'0SIGNAL=',I1,' SPEED=',F4.1,', LANES=',4F4.0,',',
     &' DISTANCES=',2(F4.1,','),' DIRECTIONAL SPLIT=',4(F4.2,',')///)
 1103 FORMAT(1X,'          MAIN       CROSS     CONCEN-       DELAY       QUEUE
     *      QUEUE        CYCLE       GREEN      CRUISE       QUEUE       ERROR
     *'/1X,      '          ADT         ADT     TRATION        TIME    (METERS)
     *      (CARS)        TIME        TIME    EMISSION    EMISSION       CHECK
     *'/)
C
      GO TO 79
C
 2000 CONTINUE
C
C
      CALL EXIT
C
C
C     ***********************************************************************
C     SKIP TO HERE FOR FREE FLOW MID BLOCK CONFIGURATION
C     ***********************************************************************
C
C
 3000 CONTINUE
C
C
```

```
C     WRITE PAGE HEADER                                                  MAI02810
C                                                                        MAI02820
C                                                                        MAI02830
      WRITE (6,3050)(ANAME(I),I=1,20),ISIG,N(1),N(2),X(1),X(2),          MAI02840
     *DSPLIT(1),DSPLIT(2)                                                MAI02850
 3050 FORMAT('1',20A4//'0ISIG=',I2,' (3 MEANS ARTERIAL, 4 MEANS XWAY); LAMAI02860
     &NES=',2F4.0,', ROAD - RECEPTOR DISTANCES = ',2F6.1,', DIRECTIONAL MAI02870
     *SPLIT=',2F6.3///'   LANE CAPACITY      TOTAL ADT  CONCENTRATION   MAI02880
     *  NEAR SPEED      FAR SPEED')                                      MAI02890
                                                                         MAI02900
C                                                                        MAI02910
C                                                                        MAI02920
C     SET UP CHI OVER Q                                                  MAI02930
C                                                                        MAI02940
C                                                                        MAI02950
      CALL XQFREE(X,XQF1,XQF2)                                           MAI02960
                                                                         MAI02970
C                                                                        MAI02980
C                                                                        MAI02990
C     LOOP ON LANE CAPACITY                                              MAI03000
C                                                                        MAI03010
C                                                                        MAI03020
      DO 3500 IVC=600,2000,ISPACE                                        MAI03030
      ADT2=0.0                                                           MAI03040
      ADTINC=10000.0                                                     MAI03050
C                                                                        MAI03060
 3100 CONTINUE                                                           MAI03070
C                                                                        MAI03080
C                                                                        MAI03090
C     RETURN TO HERE IF TRIAL CONCENTRATION IS NOT WITHIN TOLERANCE      MAI03100
C                                                                        MAI03110
C                                                                        MAI03120
      ADT2=ADT2+ADTINC                                                   MAI03130
      V(1)=ADT2*DSPLIT(1)*PEAK/N(1)                                      MAI03140
      V(2)=ADT2*DSPLIT(2)*PEAK/N(2)                                      MAI03150
      CALL VC(IVC,V,ISIG,EMC,SPEED,EM,S)                                 MAI03160
      XTRIAL=(N(1)*(EM(1)*V(1)/(S(1)*1609.344))*XQF1) +                  MAI03170
     &       (N(2)*(EM(2)*V(2)/(S(2)*1609.344))*XQF2)                    MAI03180
C                                                                        MAI03190
C                                                                        MAI03200
C     CHECK IF TRIAL CONCENTRATION IS WITHIN TOLERANCE. IF NOT,
C     INCREMENT ADT2 AND TRY AGAIN (GO TO 3100).  IF IT IS, PRINT OUT
```

```
C      SOLUTION AND INCREMENT LANE CAPACITY BY SPACE (GO TO BEGINING OF  MAI03210
C     THE DO LOOP)                                                       MAI03220
C                                                                        MAI03230
C                                                                        MAI03240
       IF (XTRIAL.LT.(XCRIT-TOL)) GO TO 3100                             MAI03250
       IF (XTRIAL.LT.(XCRIT+TOL)) GO TO 3200                             MAI03260
       ADT2=ADT2-ADTINC                                                  MAI03270
       ADTINC=ADTINC/10.0                                                MAI03280
       GO TO 3100                                                        MAI03290
C                                                                        MAI03300
 3200  WRITE (6,3250) IVC,ADT2,XTRIAL,S(1),S(2)                          MAI03310
 3250  FORMAT('0',8X,I7,F15.3,F15.8,2F15.0)                              MAI03320
C                                                                        MAI03330
C                                                                        MAI03340
C      END OF DO LOOP, RETURN AND PROCESS ANOTHER LANE CAPACITY.         MAI03350
C      IF FINAL CAPACITY PROCESSED, RETURN TO STMT 79 TO READ ANOTHER    MAI03360
C      INTERSECTION                                                      MAI03370
C                                                                        MAI03380
C                                                                        MAI03390
 3500  CONTINUE                                                          MAI03400
       GO TO 79                                                          MAI03410
       END                                                               MAI03420
```

```
      SUBROUTINE VC(IVC,V,ISIG,EMC,SPEED,EM,S)                          VC000010
                                                                        VC000020
C                                                                       VC000030
C     ..................................................................VC000040
C                                                                       VC000050
C     SUBROUTINE VOLUME/CAPACITY RATIO TO ESTIMATE SPEED                VC000060
C     AND CRUISE EMISSION RATES                                         VC000070
C                                                                       VC000080
C     INPUT VARIABLES:                                                  VC000090
C        IVC -- LANE CAPACITY                                           VC000100
C        V -- ARRAY OF LANE VOLUMES                                     VC000110
C        ISIG DUMMY VARIABLE(3=ARTERIAL, 4=LIMITED ACCESS)              VC000120
C        EMC -- CRUISE EMISSION RATE AT SELECTED V/C RATIOS             VC000130
C        SPEED -- VEHICLE SPEEDS AT SELECTED V/C RATIOS                 VC000140
C                                                                       VC000150
C     OUTPUT VARIABLES:                                                 VC000160
C        EM -- CRUISE EMISSION RATE ARRAY FOR NEAR AND FAR SIDE LANES   VC000170
C        S -- VEHICLE SPEED ARRAY FOR NEAR AND FAR SIDE LANES           VC000180
C                                                                       VC000190
C     ..................................................................VC000200
C                                                                       VC000210
      DIMENSION V(4),SS(2),EMC(15),SPEED(15),S(2),EM(2)                 VC000220
      DO 300 I=1,2                                                      VC000230
      RATIO=V(I)/FLOAT(IVC)                                             VC000240
      IF (ISIG.EQ.4) GO TO 100                                          VC000250
      IF (RATIO.LE.0.6) SS(I)=10.0                                      VC000260
      IF (RATIO.GT.0.6.AND.RATIO.LE.0.9) SS(I)=10.+(RATIO-.6)*10.       VC000270
      IF (RATIO.GT.0.9) SS(I)=13.0                                      VC000280
      GO TO 200                                                         VC000290
  100 CONTINUE                                                          VC000300
      SS(I)=RATIO*10.                                                   VC000310
      IF(SS(I).GT.10.0) SS(I)=10.0                                      VC000320
      IF (SS(I).LE.1.0) SS(I)=1.00                                      VC000330
  200 CONTINUE                                                          VC000340
      I1=IFIX(SS(I))                                                    VC000350
      I2=I1+1                                                           VC000360
      P2=SS(I)-AINT(SS(I))                                              VC000370
      P1=ABS(1.0-P2)                                                    VC000380
      EM(I)=EMC(I1)*P1+EMC(I2)*P2                                       VC000390
      S(I)=SPEED(I1)*P1+SPEED(I2)*P2                                    VC000400
  300 CONTINUE
```

```
      RETURN                                                    VC000410
      END                                                       VC000420
```

```
      SUBROUTINE QUEUE (ISIG,V,NPHASE,GMIN,CY,DELAY,LE,Q1,G,Q3,GMIN,     QUE00010
     &CYMIN,CYMAX,GAP,C1,C2)                                             QUE00020
C                                                                         QUE00030
C     ..................................................................  QUE00040
C                                                                         QUE00050
C     SUBROUTINE QUEUE -- CALCULATION OF QUEUE LENGTH FOR INTERSECTIONS   QUE00060
C                                                                         QUE00070
C     INPUT VARIABLES                                                     QUE00080
C        ISIG -- DUMMY VARIABLE (1=SIGNALIZED, 2=NONSIGNALIZED)           QUE00090
C        V -- VEHICLES PER HOUR ON EACH APPROACH                          QUE00100
C        NPHASE -- NUMBER OF PHASES (ASSUMMED TO BE 2)                    QUE00110
C        GMIN -- MINIMUM QUEUE LENGTH                                     QUE00120
C        GMIN -- MINIMUM GREEN TIME                                       QUE00130
C        CYMIN -- MINIMUM CYCLE TIME                                      QUE00140
C        CYMAX -- MAXIMUM CYCLE TIME                                      QUE00150
C        GAP - MINIMUM HEADWAY GAP                                        QUE00160
C        C1 -- CAPACITY SERVICE VOLUME (APPROACHES 1 & 2)                 QUE00170
C        C2 -- CAPACITY SERVICE VOLUME (APPROACHES 3 & 4)                 QUE00180
C                                                                         QUE00190
C     OUTPUT VARIABLES:                                                   QUE00200
C        CY -- CYCLE TIME IN SECONDS                                      QUE00210
C        DELAY -- MEAN DELAY IN SECONDS                                   QUE00220
C        LE -- QUEUE LENGTH IN METERS                                     QUE00230
C                                                                         QUE00240
C        Q1 -- FIRST TERM QUEUE                                           QUE00250
C        G -- GREEN TIME IN SECONDS                                       QUE00260
C        Q3 -- TOTAL QUEUE IN VEHICLES                                    QUE00270
C                                                                         QUE00280
C     ..................................................................  QUE00290
C                                                                         QUE00300
      DIMENSION V(4)                                                      QUE00310
      REAL LE                                                             QUE00320
      IF (V(1).GE.V(2)) VONE=V(1)                                         QUE00330
      IF (V(2).GT.V(1)) VONE=V(2)                                         QUE00340
      IF (V(3).GE.V(4)) VTWO=V(3)                                         QUE00350
      IF (V(4).GT.V(3)) VTWO=V(4)                                         QUE00360
C                                                                         QUE00370
      IF (ISIG.EQ.0) GO TO 100                                            QUE00380
C                                                                         QUE00390
C     CALCULATE THE LENGTH OF THE SIGNAL CYCLE                            QUE00400
```

```
C                                                                       QUE00410
      DENOM=1.-(VONE/C1+VTWO/C2)                                        QUE00420
      IF (DENOM.LE.0.0) DENOM=0.00001                                   QUE00430
      CY=(9.0*NPHASE+5.0)/DENOM                                         QUE00440
      IF (CY.LT.CYMIN) CY=CYMIN                                         QUE00450
      IF (CY.GT.CYMAX) CY=CYMAX                                         QUE00460
C                                                                       QUE00470
C     CALCULATE GREEN PHASE LENGTH                                      QUE00480
C                                                                       QUE00490
      G=CY*(VONE/(VONE+VTWO))-3.0                                       QUE00500
      IF (G.LT.GMIN) G=GMIN                                             QUE00510
      GMAX=CY-GMIN-6.0                                                  QUE00520
      IF (G.GT.GMAX) G=GMAX                                             QUE00530
C                                                                       QUE00540
C     CALCULATE PROPORTION OV VEHICLES THAT STOP                        QUE00550
C                                                                       QUE00560
      P=(1.-G/CY)/(1.-VONE/C1)                                          QUE00570
C                                                                       QUE00580
C     CALCULATE THE APPROACH CAPACITY                                   QUE00590
C                                                                       QUE00600
      C3=C1*G/CY                                                        QUE00610
C                                                                       QUE00620
C     CALCULATE THE QUEUE LENGTH IN CARS                                QUE00630
C                                                                       QUE00640
      Q1=P*VONE*CY/3600.                                                QUE00650
      Q2=VONE/(C3-VONE)                                                 QUE00660
      Q3=Q1+Q2                                                          QUE00670
C                                                                       QUE00680
C     CALCULATE DELAY TIME                                              QUE00690
C                                                                       QUE00700
      D1=0.5*P*(CY-G)                                                   QUE00710
      D2=3600.*VONE/(C3*(C3-VONE))                                      QUE00720
      DELAY=D1+D2                                                       QUE00730
C                                                                       QUE00740
C     CALCULATE THE QUEUE LENGTH IN METERS                              QUE00750
      LE=Q3*8.0                                                         QUE00760
      IF (LE.LT.QMIN) LE=QMIN                                           QUE00770
      RETURN                                                            QUE00780
C                                                                       QUE00790
C                                                                       QUE00800
```

```
C      SKIP TO HERE FOR NONSIGNALIZED INTERSECTIONS                      QUE00810
C                                                                        QUE00820
C                                                                        QUE00830
  100 CONTINUE                                                           QUE00840
C                                                                        QUE00850
C      CALCULATE THE APPROACH CAPACITY                                   QUE00860
C                                                                        QUE00870
       EGAP=2.*GAP*VTWO/3600.                                            QUE00880
       EGAP=EXP(-EGAP)                                                   QUE00890
       C3=2.0*VTWO*EGAP/(1.0-EGAP)                                       QUE00900
C                                                                        QUE00910
C      CALCULATE THE NUMBER OF QUEUED VEHICLES                           QUE00920
C                                                                        QUE00930
       DENOM=C3-VONE                                                     QUE00940
       IF (DENOM.LE.0.0) DENOM=0.00001                                   QUE00950
       Q3=VONE/DENOM                                                     QUE00960
C                                                                        QUE00970
C      CALCULATE THE DELAY TIME                                          QUE00980
C                                                                        QUE00990
       DELAY=Q3*3600./C3                                                 QUE01000
C                                                                        QUE01010
C      CALCULATE THE QUEUE LENGTH IN METERS                              QUE01020
C                                                                        QUE01030
       LE=Q3*8.0                                                         QUE01040
       IF (LE.LT.QMIN) LE=40.0                                           QUE01050
       CY=3600.                                                          QUE01060
       Q1=VONE                                                           QUE01070
       G=0.0                                                             QUE01080
       RETURN                                                            QUE01090
       END                                                               QUE01100
```

```
      SUBROUTINE XQ(LE,N,XQE,XQFM,XQFC)                                 XQ000010
C                                                                       XQ000020
C     ..............................................................    XQ000030
C                                                                       XQ000040
C     SUBROUTINE XC -- CHI OVER Q (FOR INTERSECTIONS ONLY)              XQ000050
C                                                                       XQ000060
C     INPUT VARIABLES:                                                  XQ000070
C        LE -- QUEUE LENGTH IN METERS                                   XQ000080
C        N -- NUMBER OF LANES                                           XQ000090
C                                                                       XQ000100
C     OUTPUT VARIABLES:                                                 XQ000110
C        XQE - CHI OVER Q FOR EXCESS EMISSIONS                          XQ000120
C        XQFM -- CHI OVER Q FOR MAIN STREET, FREE FLOWING TRAFFIC       XQ000130
C        XQFC -- CHI OVER Q FOR CROSSING STREET, FREELY FLOWING TRAFFIC XQ000140
C                                                                       XQ000150
C     ..............................................................    XQ000160
C                                                                       XQ000170
      DIMENSION XQE(4),N(4)                                             XQ000180
      REAL LE,N                                                         XQ000190
C                                                                       XQ000200
      XQE(1)=(352.67*ALOG10(LE))-246.8                                  XQ000210
      XQE(2)=(40.92*ALOG10(LE))+19.6                                    XQ000220
      XQE(3)=(-14.18*ALOG10(LE))+61.9                                   XQ000230
      XQE(4)=(-33.14*ALOG10(LE))+73.1                                   XQ000240
      DO 2 I=1,4                                                        XQ000250
    2 XQE(I)=XQE(I)*N(I)                                                XQ000260
C                                                                       XQ000270
      DO 5 I=3,4                                                        XQ000280
    5 IF (XQE(I).LT.0.0) XQE(I)=0.0                                     XQ000290
C                                                                       XQ000300
      IF (LE.GE.150.0) GO TO 10                                         XQ000310
      XQFM=10**((0.4887*ALOG10(LE))+1.7968)                             XQ000320
      XQFC=10**((-0.3215*ALOG10(LE))+2.6289)                            XQ000330
      RETURN                                                            XQ000340
C                                                                       XQ000350
   10 XQFM=725.0                                                        XQ000360
      XQFC=65.0                                                         XQ000370
      RETURN                                                            XQ000380
      END                                                               XQ000390
```

```
      SUBROUTINE XQFREE(X,XQF1,XQF2)
C
C     ..................................................................
C
C     SUBROUTINE CHI OVER Q FOR FREE FLOW MID BLOCK
C
C     INPUT VARIABLES:
C        X -- ARRAY OF ROADWAY RECEPTOR DISTANCES
C
C     OUTPUT VARIABLES:
C
C        XQF1 -- CHI OVER Q FOR NEAR SIDE LANES
C        XQF2 -- CHI OVER Q FOR FAR SIDE LANES
C
C     ..................................................................
C
      DIMENSION X(2),XQF(2)
      DO 10 I=1,2
      IF (X(I).LE.30.) XQF(I)=3318.476*X(I)**(-0.57343061)
      IF (X(I).GT.30.) XQF(I)=555.9715*X(I)**(-0.702235099)
   10 CONTINUE
      XQF1=XQF(1)
      XQF2=XQF(2)
      RETURN
      END
```

```
      SUBROUTINE DIST(X,ISIG,CDE,CDF)                                    DIS00010
C                                                                        DIS00020
C     ..................................................................  DIS00030
C                                                                        DIS00040
C     SUBROUTINE DISTANCE CORRECTION FACTOR                              DIS00050
C                                                                        DIS00060
C     INPUT VARIABLE:                                                    DIS00070
C        X -- ROADWAY RECEIPTOR DISTANCE                                 DIS00080
C        ISIG -- DUMMY VARIABLE (1=SIGNALIZED, 0=NONSIGNALIZED)          DIS00090
C                                                                        DIS00100
C     OUTPUT VARIABLES:                                                  DIS00110
C        CDE -- DISTANCE CORRECTION FOR EXCESS EMISSIONS                 DIS00120
C        CDF -- DISTANCE CORRECTIONS FOR FREELY FLOWING EMISSIONS        DIS00130
C                                                                        DIS00140
C     ..................................................................  DIS00150
      DIMENSION X(2),CDE(4),CDF(2),CORECT(2)                             DIS00160
      CORECT(1)=1.0                                                      DIS00170
      CORECT(2)=0.79                                                     DIS00180
C                                                                        DIS00190
C                                                                        DIS00200
C     DISTANCE CORRECTION FACTOR, EXCESS EMISSIONS, APPROACH 1 AND 2     DIS00210
C                                                                        DIS00220
      DO 10 I=1,2                                                        DIS00230
      CDE(I)=(1.50936 - .0716361*X(I) + .213494E-02*X(I)**2.0 -          DIS00240
     & .344571E-04*X(I)**3.0 + .298415E-06*X(I)**4.0 -                   DIS00250
     & .130532E-08*X(I)**5.0 + .226315E-11*X(I)**6.0 )/CORECT(I)         DIS00260
   10 CONTINUE                                                           DIS00270
C                                                                        DIS00280
C                                                                        DIS00290
C     DISTANCE CORRECTION FACTOR, EXCESS EMISSIONS, APPROACH 3 AND 4     DIS00300
C                                                                        DIS00310
C                                                                        DIS00320
      DO 20 I=3,4                                                        DIS00330
      CDE(I)=FLOAT(ISIG)                                                 DIS00340
   20 CONTINUE                                                           DIS00350
C                                                                        DIS00360
C                                                                        DIS00370
C     DISTANCE CORRECTION FACTOR, FREE FLOW EMISSIONS, APPROACH 1 AND 2  DIS00380
                                                                         DIS00390
                                                                         DIS00400
```

```
C                                                                       DIS00410
C                                                                       DIS00420
      DO 30 I=1,2                                                       DIS00430
      CLF(I)=1.72029 - .995128E-01*X(I) + .313396E-02*X(I)**2.0 -       DIS00440
     & .522075E-04*X(I)**3.0 + .465016E-06*X(I)**4.0 -                  DIS00450
     & .209115E-08*X(I)**5.0 + .372523E-11*X(I)**6.0                    DIS00460
   30 CONTINUE                                                          DIS00470
      RETURN                                                            DIS00480
      END                                                               DIS00490
```

```
      SUBROUTINE EMIS(V,A,D,IS,EMQ,EMI,EMC,FACTOR)                      EMI00010
                                                                        EMI00020
C     ..................................................................EMI00030
C                                                                       EMI00040
C     SUBROUTINE EMISSIONS DETERMINATION                                EMI00050
C                                                                       EMI00060
C                                                                       EMI00070
C                                                                       EMI00080
C     INPUT VARIABLES:                                                  EMI00090
C        ISPEED, COUNTER                                                EMI00100
C        V, SPEED (MILES PER HOUR)                                      EMI00110
C        A, ACCELERATION (MILES PER HOUR PER SECOND)                    EMI00120
C        D, DECELERATION (MILES PER HOUR PER SECOND)                    EMI00130
C        FACTOR, DESIRED EMISSIONS SCENARIO VS. 1977 LDV STABILIZED     EMI00140
C                                                                       EMI00150
C                                                                       EMI00160
C     OUTPUT VARIABLES:                                                 EMI00170
C        EMQ, EXCESS QUEUE EMISSIONS FROM ACCELERATION AND DECELERATION EMI00180
C                                    (GRAMS CO PER VEHICLE)             EMI00190
C        EMI, IDLE EMISSIONS (GRAMS CO PER VEHICLE - SECOND)            EMI00200
C        EMC, CRUISE EMISSIONS OVER ACCELERATION AND DECELERATION TIME  EMI00210
C                                    (GRAMS CO PER VEHICLE)             EMI00220
C                                                                       EMI00230
C                                                                       EMI00240
C     IN THE FIRST EXECUTION OF THE SUBROUTINE, INPUT DATA ARE READ:    EMI00250
C        IDL77, SUPPLEMENT B CO IDLE EMISSION FACTOR, 1977 (G/VEH/SEC)  EMI00260
C        IDLFTR, SUPPLEMENT S IDLE EMISSION FACTOR FOR DESIRED SCENARIO EMI00270
C        DETER, DETERIORATION FACTORS FOR THE MODAL MODEL COEFFICIENTS   EMI00280
C        COEF, MODAL MODEL COEFICIENTS FOR 1975                         EMI00290
C        DEC, MODEL YEAR MIX (20 GROUPS) FOR MODAL MODEL COEFFICIENTS   EMI00300
C                                                                       EMI00310
C                                                                       EMI00320
C     THE SUBROUTINE THEN CALCULATES AND PRINTS THE ACCELERATION OR     EMI00330
C     DECELERATION, CRUISE, EXCESS ACEL. OR DECEL. AND IDLE EMISSIONS   EMI00340
C     FOR EACH POLLUTANT AND SPEED - ACCELERATION PAIR. THERE ARE       EMI00350
C     TWO SPEED - ACCELERATION PAIRS FOR EACH INTERSECTION SPEED.       EMI00360
C     SUBROUTINE ESUM IS CALLED.                                        EMI00370
C                                                                       EMI00380
C                                                                       EMI00390
C                                                                       EMI00400
C
```

```
C     ..................................................................  EMI00410
C                                                                         EMI00420
C                                                                         EMI00430
      REAL*8 COEF(20,4,12),POLUT(8)/' HYDROCA','RBONS  ',' CARBON ',      EMI00440
     *'MONOXIDE',' CARBON ','DIOXIDE ',' NITROGE','N OXIDES'/,            EMI00450
     &DETER(20,4),ACC,VEL,T1,DEC(20),EMAD(4),EMCRUZ(4),EMIDLE(4)          EMI00460
      REAL IDL77,IDLFTR                                                   EMI00470
      EMQ=0.                                                              EMI00480
      EMJ=0.                                                              EMI00490
      EMC=0.                                                              EMI00500
      IF (IS.NE.1) GO TO 1                                                EMI00510
C                                                                         EMI00520
C     READ INPUT DATA IF FIRST TIME THROUGH (WHEN ITIME EQUALS ZERO)      EMI00530
C                                                                         EMI00540
C                                                                         EMI00550
C     READ AND PRINT CO COMPOSITE IDLE EMISSION FACTORS                   EMI00560
C                                                                         EMI00570
      READ (5,250) IDL77,IDLFTR                                           EMI00580
  250 FORMAT (2F10.0)                                                     EMI00590
      RATIO=IDLFTR/IDL77                                                  EMI00600
      WRITE (6,251) IDL77,IDLFTR,RATIO                                    EMI00610
  251 FORMAT ('1COMPOSITE IDLE EMISSION FACTORS:'/                        EMI00620
     &6X,'1977              =',F7.5,' G/VEH/SEC'/                        EMI00630
     &6X,'DESIRED SCENARIO=',F7.5,' G/VEH/SEC'/                           EMI00640
     &6X,'RATIO OF ABOVE  =',F7.5)                                        EMI00650
C                                                                         EMI00660
C                                                                         EMI00670
C     SECOND, READ 20 DETERIORATION FACTORS FOR EACH POLLUTANT            EMI00680
C                                                                         EMI00690
      DO 301 I1=1,20                                                      EMI00700
      READ(5,300)(DETER(I1,IC),IC=1,4)                                    EMI00710
  300 FORMAT(4F10.0)                                                      EMI00720
  301 CONTINUE                                                            EMI00730
      WRITE (6,306)                                                       EMI00740
  306 FORMAT('1DETERIORATION FACTORS, MODEL YEAR (DOWN) BY POLLUTANT (ACEMI00750
     *CROSS)'//)                                                          EMI00760
      WRITE(6,307)((DETER(I1,IC),IC=1,4),I1=1,20)                         EMI00770
  307 FORMAT(20(/1X,4F15.5))                                              EMI00780
C                                                                         EMI00790
C     NOW READ THE MODAL MODEL COEFFICIENTS FOR 18 MODEL YEARS            EMI00800
C
```

```
      DO 320 I1=1,18                                                    EMI00810
      DO 320 IC=1,4                                                     EMI00820
      DO 320 IM=1,3                                                     EMI00830
      IEL=(IM-1)*4+1                                                    EMI00840
      IEH=(IM-1)*4+4                                                    EMI00850
      READ(5,315)((COEF(I1,IC,IE),IE=IEL,IEH)                          EMI00860
  315 FORMAT(10X,4E15.8)                                                EMI00870
  320 CONTINUE                                                          EMI00880
C                                                                       EMI00890
C     ASSUME THE 1977 IN 1977 AND THE 1976 IN 1976 MODAL COEFFICIENTS   EMI00900
C     TO BE THE SAME AS THE 1975 COEFFICIENTS IN 1975                   EMI00910
      DO 325 IC=1,4                                                     EMI00920
      DO 325 IE=1,12                                                    EMI00930
      DO 325 I1=19,20                                                   EMI00940
      COEF(I1,IC,IE)=COEF(18,IC,IE)                                     EMI00950
  325 CONTINUE                                                          EMI00960
      WRITE (6,326)                                                     EMI00970
  326 FORMAT('1 MODAL MODEL COEFFICIENTS FOR CO - AS INPUT')            EMI00980
      WRITE (6,327)((COEF(I1,2,IE),IE=1,12),I1=1,20)                    EMI00990
  327 FORMAT(240(1X,4E15.8/))                                           EMI01000
C                                                                       EMI01010
C                                                                       EMI01020
C     DETERIORATE 1975 COEFFICIENTS TO 1977                             EMI01030
C                                                                       EMI01040
      DO 330 IC=1,4                                                     EMI01050
      DO 330 IE=1,12                                                    EMI01060
      DO 330 I1=1,20                                                    EMI01070
      COEF(I1,IC,IE)=COEF(I1,IC,IE)*DETER(I1,IC)                        EMI01080
  330 CONTINUE                                                          EMI01090
      WRITE (6,328)                                                     EMI01100
  328 FORMAT('1 MODAL MODEL COEFFICIENTS FOR CO - AFTER APPLICATION OF  EMI01110
     &ETERORIATION')                                                    EMI01120
      WRITE (6,327)((COEF(I1,2,IE),IE=1,12),I1=1,20)                    EMI01130
C                                                                       EMI01140
C     READ DEC. THE MODEL YEAR MIX                                      EMI01150
C                                                                       EMI01160
  385 CONTINUE                                                          EMI01170
      READ(5,103)(DEC(KK),KK=1,20)                                      EMI01180
  103 FORMAT(10F5.0/10F5.0)                                             EMI01190
                                                                        EMI01200
```

```
      WRITE (6,104)(DEC(KK),KK=1,20)                                    EMI01210
  104 FORMAT('1MODEL YEAR MIX'//20(1X,F15.8/))                          EMI01220
C                                                                       EMI01230
C     SKIP TO HERE IF ITIME NE TO 0, THAT IS INPUT DATA HAS BEEN READ   EMI01240
C                                                                       EMI01250
C     READ A VELOCITY - ACCELERATION PAIR, CALL ESUM, AND PRINT         EMI01260
C     EMISSIONS.  THIS IS DONE TWICE EACH TIME SUBROUTINE EMIS IS       EMI01270
C     CALLED - THAT IS TWICE FOR EACH INTERSECTION.                     EMI01280
C                                                                       EMI01290
C                                                                       EMI01300
C                                                                       EMI01310
    1 CONTINUE                                                          EMI01320
      ACC=DBLE(A)                                                       EMI01330
      VEL=DBLE(V)                                                       EMI01340
      TIME=0.0                                                          EMI01350
      DO 100 INX=1,2                                                    EMI01360
      CALL ESUM(VEL,ACC,COEF,EMAD,EMCRUZ,DEC,T1,EMIDLE)                 EMI01370
      IPAGE=2-INX                                                       EMI01380
      WRITE(6,503) IPAGE,V,ACC                                          EMI01390
  503 FORMAT(11,'LDV STABILIZED EMISSION RATES: SPEED=',F5.2,10X,'ACCELEEMI01400
     &RATION=',F5.2)                                                    EMI01410
      TIME=TIME+SNGL(T1)                                                EMI01420
      DO 13 I=1,4                                                       EMI01430
      E1=SNGL(EMCRUZ(I)*T1)/2.0                                         EMI01440
      E2=SNGL(EMAD(I))-E1                                               EMI01450
      E3=SNGL(EMIDLE(I))                                                EMI01460
   13 WRITE(6,504) POLUT(2*I-1),POLUT(2*I),EMAD(I),E1,E2,E3             EMI01470
  504 FORMAT (2A8,4(F10.5,10X))                                         EMI01480
      WRITE(6,505)                                                      EMI01490
  505 FORMAT(1H0,15X,'ACEL/DECEL',10X,'  CRUISE  ',10X,'EXCESS A/D',10X,EMI01500
     *'   IDLE'/16X,3('   G/VEH   ',10X),' G/VEH*SEC')                 EMI01510
      E1=SNGL(EMCRUZ(2)*T1)*FACTOR/2.0                                  EMI01520
      E2=(SNGL(EMAD(2))*RATIO)-E1                                       EMI01530
      E3=SNGL(EMIDLE(2))*RATIO                                          EMI01540
      EMO=EMO+E2                                                        EMI01550
      EMI=E3                                                            EMI01560
      EMC=SNGL(EMCRUZ(2))*FACTOR                                        EMI01570
      ACC=DBLE(D)                                                       EMI01580
  100 CONTINUE                                                          EMI01590
      EMIB=IDLFTR                                                       EMI01600
      WRITE (6,700) EMO,EMC,EMI,EMIB
  700 FORMAT (////' TOTAL CO EMISSION RATES FOR DESIRED SCENARIO'/'0AC/DE
```

```
     &EC EMISSIONS    =',F8.5,' G/VEH'/' CRUISE EMISSIONS    =',F8.5,' G/VEMI01610
     &EH SEC'/' MM IDLE EMISSIONS    =',F8.5,' G/VEH SEC'/' SUP8 IDLE EMISEMI01620
     &SIONS=',F8.5,' G/VEH SEC'///)                                      EMI01630
      EMI=EMI8                                                           EMI01640
C                                                                        EMI01650
C     CALCULATE ACCELERATION AND DECELERATION DISTANCES                  EMI01660
C                                                                        EMI01670
      ADIS=0.5*V**2*1609.344/(A*3600.)                                   EMI01680
      DDIS=0.5*V**2*1609.344/(ABS(D)*3600.)                              EMI01690
      TDIS=ADIS+DDIS                                                     EMI01700
      WRITE (6,900) ADIS,DDIS,TDIS,TIME                                  EMI01710
  900 FORMAT('0ACCELERATION DISTANCE =',F8.3,' METERS'/                  EMI01720
     &       '0DECELERATION DISTANCE =',F8.3,' METERS'/                  EMI01730
     &'0',16X,'TOTAL =',F8.3,' METERS'///'0TOTAL TIME',12X,'=',F9.3,     EMI01740
     &' SECONDS')                                                        EMI01750
  999 CONTINUE                                                           EMI01760
      RETURN                                                             EMI01770
      END                                                                EMI01780
```

```
      SUBROUTINE ESUM(V,A,BAD,EMAD,EMCRUZ,DEC,T,EMIDLE )                ESU00010
C                                                                        ESU00020
C     ..................................................................ESU00030
C                                                                        ESU00040
C     SUBROUTINE EMISSIONS CALCULATION AND SUMMATION OVER MODEL YEAR     ESU00050
C                                                                        ESU00060
C        INPUT VARIABLES:                                                ESU00070
C           V, VELOCITY (MILES PER HOUR)                                 ESU00080
C           A, ACCELERATION (MILES PER HOUR PER SECOND)                  ESU00090
C           BAD, MODAL COEFFICIENTS - MODEL YEAR BY POLLUTANT BY TERM    ESU00100
C           DEC, MODEL YEAR MIX                                          ESU00110
C                                                                        ESU00120
C        OUTPUT VARIABLES:                                               ESU00130
C           EMAD, ACCELERATION OR DECELERATION EMISSIONS (G/VEH)         ESU00140
C           EMCRUZ, CRUISE EMISSIONS (GRAM PER VEHICLE PER SECOND)       ESU00150
C           T1, TIME FOR ACCELERATION OR DECELERATION (SECONDS)          ESU00160
C           EMIDLE, IDLE EMISSIONS (GRAMS/VEHICLE/SECOND)                ESU00170
C                                                                        ESU00180
C     THE SUBROUTINE CALCULATES ACELERATION OR DECELERATION EMISSIONS,   ESU00190
C     CRUISE EMISSIONS, AND IDLE EMISSIONS.  THE ACELERATION OR DECEL-   ESU00200
C     ERATION EMISSIONS ARE CALCULATED FROM AN INTEGRATION OVER TIME OF  ESU00210
C     THE MODAL MODEL EGUATION FOR INSTANTANFOUS EMISSIONS, ASSUMING A   ESU00220
C     CONSTANT ACELERATION OR DECELERATION (INPUT) FROM OR TO THE        ESU00230
C     INITIAL OR TERMINAL VELOCITY (INFUT).  CRUISE EMISSIONS ARE        ESU00240
C     CALCULATED FOR THE INITIAL OR TERMINAL VELOCITY.                   ESU00250
C                                                                        ESU00260
C     ..................................................................ESU00270
      REAL*8 BAD(20,4,12),X(12),XC(3),AMIN,AMAX,A1,A2,HOA,SOA,V,A,T,     ESU00280
     &EMAD(4),EMCRUZ(4),DEC(20),EMIDLE(4)                                ESU00290
      AMAX=1.0D0                                                         ESU00300
      AMIN=-1.2D0                                                        ESU00310
      A1=-1.0D0/AMIN                                                     ESU00320
      A2=-1.0D0/AMAX                                                     ESU00330
      DO 3001 IC=1,4                                                     ESU00340
      EMAD(IC)=0.0D0                                                     ESU00350
      EMIDLE(IC)=0.0D0                                                   ESU00360
 3001 EMCRUZ(IC)=0.0D0                                                   ESU00370
C                                                                        ESU00380
                                                                         ESU00390
                                                                         ESU00400
```

```
C     SET UP VARIABLE FOR EACH TERM                                          ESU00410
C                                                                            ESU00420
      T=DABS(V/A)                                                            ESU00430
      X(1)=T                                                                 ESU00440
      X(2)=A*T*T/2.0D0                                                       ESU00450
      X(3)=A*T                                                               ESU00460
      X(4)=(A**2)*(T**2)/2.0D0                                               ESU00470
      X(5)=(A**2)*(T**3)/3.0D0                                               ESU00480
      X(6)=(A**2)*T                                                          ESU00490
      X(8)=(A**3)*(T**3)/3.0D0                                               ESU00500
      X(7)=(A**3)*(T**2)/2.0D0                                               ESU00510
      X(9)=(A**4)*(T**3)/3.0D0                                               ESU00520
      X(10)=X(1)                                                             ESU00530
      X(11)=X(2)                                                             ESU00540
      X(12)=X(5)                                                             ESU00550
      XC(1)=1.0D0                                                            ESU00560
      XL(2)=V                                                                ESU00570
      XC(3)=V*V                                                              ESU00580
      IF(A.GE.AMAX) HOA=0.0D0                                                ESU00590
      IF(A.LE.AMIN) HOA=0.0D0                                                ESU00600
      IF(A.GE.0.0D0.AND.A.LT.AMAX) HOA=(A2*A)+1.0D0                          ESU00610
      IF(A.LE.0.0D0.AND.A.GT.AMIN) HOA=(A1*A)+1.0D0                          ESU00620
      SOA=1.0D0-HOA                                                          ESU00630
C                                                                            ESU00640
C     LOOP TO 3551 ON MODEL YEAR, TO 2999 ON POLLUTANT, TO 3000 ON TERM      ESU00650
C     OF MODAL MODEL EQUATION INTEGRATION.  ALSO COMPUTE CRUISE              ESU00660
C     EMISSIONS ON LOOPS 10,11, & 12.  CALCULATE IDLE EMISSIONS WHEN         ESU00670
C     FINISHED WITH THE 12TH TERM.                                           ESU00680
C                                                                            ESU00690
      DO 3551 I1=1,20                                                        ESU00700
      IF(DEC(I1).EQ.0.0) GO TO 3551                                          ESU00710
      DO 2999 IC=1,4                                                         ESU00720
      DO 3000 IE=1,12                                                        ESU00730
      IF(IE.GT.9) GO TO 2997                                                 ESU00740
      IF(A.LT.0.0D0.AND.IE.EQ.2) GO TO 2996                                  ESU00750
      IF(A.LT.0.0D0.AND.IE.EQ.4) GO TO 2996                                  ESU00760
      IF(A.LT.0.0D0.AND.IE.EQ.7) GO TO 2996                                  ESU00770
      EMAD(IC)=EMAD(IC)+X(IE)*SOA*BAD(I1,IC,IE)*DEC(I1)                      ESU00780
      GO TO 2998                                                             ESU00790
 2996 EMAD(IC)=EMAD(IC)-X(IE)*SOA*BAD(I1,IC,IE)*DEC(I1)                      ESU00800
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      GO TO 2998                                                        ESU00810
 2997 CONTINUE                                                          ESU00820
      EMCRUZ(IC)=EMCRUZ(IC)+XC(IE-9)*BAD(I1,IC,IE)*DEC(I1)             ESU00830
      IF (A.LT.0.CDO.AND.IE.EQ.11) GO TO 2995                           ESU00840
      EMAD(IC)=EMAD(IC)+X(IE)*BAD(I1,IC,IE)*DEC(I1)*HOA                 ESU00850
      GO TO 2998                                                        ESU00860
 2995 EMAD(IC)=EMAD(IC)-X(IE)*BAD(I1,IC,IE)*DEC(I1)*HOA                 ESU00870
 2998 CONTINUE                                                          ESU00880
 3000 CONTINUE                                                          ESU00890
      EMIDLE(IC)=EMIDLE(IC)+XC(1)*BAD(I1,IC,10)*DEC(I1)                 ESU00900
 2999 CONTINUE                                                          ESU00910
 3551 CONTINUE                                                          ESU00920
      RETURN                                                            ESU00930
      END                                                               ESU00940
```

```
$ELT,L  HOTSPDATA
ELT007 SL73P1 07/20/79 19:26:59 (4,)
000001      C04      10.00000    2.90000     .70000  40.00000   2.50000  -2.50000 17    100
000002      C00       0.05000  500.00000   0.06500   8.00000  40.00000 160.00000   4.00000
000003      000    1800.00000 1800.00000
000004      000      57.00000    1.37135
000005      000      55.00000    1.34578
000006      000      53.00000    1.32779
000007      000      50.00000    1.30720
000008      000      47.00000    1.28955
000009      000      45.00000    1.27697
000010      000      42.00000    1.25891
000011      000      40.00000    1.24561
000012      000      37.00000    1.22596
000013      000      30.00000    1.17998
000014      000      25.00000    1.15004
000015      000      20.00000    1.12425
000016      000      15.00000    1.07900
000017      000      12.50000    1.00000
000018      000      10.00000    1.00000
000019      000       7.50000    1.00000
000020      000       5.00000    1.00000
000021      000       0.41950    0.36175
000022      000         1.378      1.146     1.000     1.000
000023      000         1.435      1.214     1.000     1.000
000024      000         1.680      1.558     1.000     1.000
000025      000         1.703      1.671     1.000     1.000
000026      000         1.746      1.708     1.000     1.000
000027      000         1.976      1.824     1.000     1.000
000028      000         2.115      2.033     1.000     1.000
000029      000         1.597      1.312     1.000     1.000
000030      000         1.573      1.290     1.000     1.000
000031      000         1.681      1.327     1.000     1.000
000032      000         1.772      1.351     1.000     1.000
000033      000         1.450      1.218     1.000     1.000
000034      000         1.485      1.217     1.000     1.000
000035      000         1.654      1.497     1.000     1.000
000036      000         1.733      1.524     1.000     1.000
000037      000         1.594      1.558     1.000     1.000
000038      000         1.631      1.584     1.000     1.000
000039      000         1.426      1.339     1.000     1.084
000040      000         1.180      1.144     1.000     1.036
000041      000         0.953      0.963     1.000     0.991
000042      000       1    1 0.90408921E-01-0.43798499E-02 0.46575181E-02 0.46570692E-03
000043      000       1    1 0.82166778E-04-0.11397827E-01 0.13474836E-02-0.36643314E-05
000044      000       1    1-0.22224063E-04 0.30548215E-01-0.22557352E-03 0.16962629E-04
000045      000       1    2 0.10210419E+01-0.46106476E-01 0.12750413E-01 0.19804664E-01
000046      000       1    2 0.10487151E-02-0.15174127E+00 0.19398060E-01-0.79918522E-04
000047      000       1    2-0.27256622E-03 0.33066291E+00-0.24132896E-02 0.32060244E-03
000048      000       1    3 0.71484953E+00 0.15362855E-01 0.87663889E-01 0.14564995E-01
000049      000       1    3 0.45786635E-03 0.13243157E-01 0.31411450E-02 0.84506202E-04
000050      000       1    3-0.12923865E-05 0.86623710E+00 0.10729667E-01 0.12485683E-02
000051      000       1    4-0.35480408E-02 0.58063143E-03 0.10358056E-02-0.45612847E-04
000052      000       1    4 0.47222775E-05 0.21175048E-02-0.18792201E-03 0.31752579E-05
000053      000       1    4 0.33967408E-05 0.30701563E-02-0.31551067E-03 0.23013577E-04
000054      000       2    1 0.74031651E-01-0.30712544E-02 0.60856193E-02 0.21202014E-03
000055      000       2    1 0.57630212E-04-0.73382109E-02 0.88895089E-03-0.11810998E-05
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000056    000     2    1-0.1449E754E-04 0.27507048E-01-0.285790078-03 0.14516227E-04
000057    000     2    2 0.635761206+00-0.2451035FE-01 0.43812852E-01 0.49628541E-02
000058    000     2    2 0.44958130E-03-0.47973134E-01 0.61538182E-02 0.10994070E-04
000059    000     2    2-0.67511966E-04 0.30338836E+00-0.27355787E-02 0.13473761E-03
000060    000     2    3 0.12663460E+01 0.24310540E-01 0.10674191E+00 0.33634592E-01
000061    000     2    3 0.82991435E-03 0.30546652E-02 0.77637769E-02 0.10368174E-03
000062    000     2    3-0.32426819E-04 0.90210754E+00 0.12757938E-01 0.13337550E-02
000063    000     2    4 0.50182119E-02 0.17176081E-03 0.53202268E-03 0.37671579E-03
000064    000     2    4 0.20686188E-04-0.32121711E-03 0.16474385E-03 0.30790188E-05
000065    000     2    4-0.23820230E-05 0.35156019E-02-0.47130720E-03 0.32509648E-04
000066    000     3    1 0.27212832E-01-0.38454239E-03 0.23166770E-02 0.44772075E-03
000067    000     3    1 0.15004128E-04-0.76230941E-03 0.21233164E-03-0.50537274E-05
000068    000     3    1-0.341075D7E-05 0.18768396E-01 0.22212604E-03 0.27737669E-05
000069    000     3    2 0.28043038E+00-0.47583580E-02 0.43524541E-01 0.13806063E-02
000070    000     3    2 0.10754808E-03-0.21531656E-02 0.93090301E-03 0.11250070E-04
000071    000     3    2-0.19257031E-05 0.22921783E+00-0.40214434E-02 0.12248126E-03
000072    000     3    3 0.19142990E+01 0.18390398E-02 0.18897372E+00 0.23611151E-01
000073    000     3    3 0.11208029E-02-0.65214396E-01 0.14079195E-01 0.18680211E-03
000074    000     3    3-0.16246544E-03 0.12807140E+01 0.27259979E-01 0.10226872E-02
000075    000     3    4 0.96157379E-02-0.60726982E-03-0.16718925E-03 0.62551862E-03
000076    000     3    4 0.33326345E-04-0.28037534E-02 0.48555480E-03-0.29296501E-06
000077    000     3    4-0.81203279E-05 0.31921237E-02-0.45137736E-03 0.30037307E-04
000078    000     4    1 0.47496643E-01-0.19568307E-02 0.40773861E-02 0.41705192E-04
000079    000     4    1 0.35876787E-04-0.48935749E-02 0.59369067E-03-0.25508832E-07
000080    000     4    1-0.92721875E-05 0.21479022E-01-0.22617164E-03 0.71491559E-05
000081    000     4    2 0.49613750E+00-0.14627926E-01 0.61504323E-01-0.10729437E-02
000082    000     4    2 0.21254545E-03-0.68023652E-02 0.97647379E-03 0.10525828E-03
000083    000     4    2 0.37405029E-04 0.26291054E+00-0.18189936E-02 0.84008745E-04
000084    000     4    3 0.15495939E+01 0.22769805E-01 0.10090774E+00 0.39233319E-01
000085    000     4    3 0.92311646E-03-0.23605488E-01 0.11956014E-01 0.83194202E-04
000086    000     4    3-0.94423056E-04 0.12810173E+01 0.64555928E-02 0.13930460E-02
000087    000     4    4 0.56772530E-02 0.12870535E-03-0.20740409E-02 0.91203256E-03
000088    000     4    4 0.27594753E-04-0.23685503E-02 0.46662986E-03-0.32386451E-05
000089    000     4    4-0.79489128E-05 0.46557412E-02-0.56421268E-03 0.36217214E-04
000090    000     5    1 0.48391828E-01-0.20854692E-02 0.25164301E-02 0.13065564E-03
000091    000     5    1 0.36623620E-04-0.58513656E-02 0.63295290E-03-0.47845251E-07
000092    000     5    1-0.93267872E-05 0.19670408E-01-0.24843938E-03 0.80316249E-05
000093    000     5    2 0.50066710E+00-0.17586585E-01 0.59339337E-01-0.18133272E-02
000094    000     5    2 0.22920808E-03-0.12368988E-01 0.11492474E-02 0.74215845E-04
000095    000     5    2 0.14108437E-04 0.30531263E+00-0.70244968E-02 0.10785337E-03
000096    000     5    3 0.20011082E+01-0.54947240E-03 0.82746744E-01 0.42140689E-01
000097    000     5    3 0.13168864E-02-0.12974644E+00 0.21255631E-01 0.10462193E-03
000098    000     5    3-0.23740107E-03 0.13393688E+01 0.81634559E-02 0.14972652E-02
000099    000     5    4 0.61012730E-02 0.51880744E-03-0.49174391E-02 0.15496158E-02
000100    000     5    4 0.28336726E-04-0.32206392E-02 0.62561315E-03-0.10417730E-04
000101    000     5    4-0.10286674E-04 0.49542226E-02-0.69028046E-03 0.46556132E-04
000102    000     6    1 0.26139319E-01-0.88184210E-03 0.29786373E-02 0.52866199E-05
000103    000     6    1 0.18847655E-04-0.19127505E-02 0.25880150E-03 0.16556996E-05
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000258  000     0.0 .071  0.0 .032 .047 .063 .079  0.0  0.0  0.0
000259  000     0.0  0.0  0.0  0.0  0.0 .094 .229 .130 .143 .112
000260  000   2 LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (CONGESTED)
000261  000       1   13   1.0   1.0   2.0   0.0  6.75 13.25    .5    .5   1.0   0.0
000262  000   2 LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)
000263  000       1   10   1.0   1.0   2.0   0.0  6.75 13.25    .5    .5   1.0   0.0
000264  000   2 LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (CONGESTED)
000265  000       1   13   1.0   1.0   1.0   1.0  6.75 13.25    .5    .5    .5    .5
000266  000   2 LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000267  000       1   10   1.0   1.0   1.0   1.0  6.75 13.25    .5    .5    .5    .5
000268  000   2 LANE - 2 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (CONGESTED)
000269  000       1   13   1.0   1.0   3.0   0.0  6.75 13.25    .5    .5   1.0   0.0
000270  000   2 LANE - 2 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)
000271  000       1   10   1.0   1.0   3.0   0.0  6.75 13.25    .5    .5   1.0   0.0
000272  000   2 LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (CONGESTED)
000273  000       1   13   1.0   1.0   2.0   1.0  6.75 13.25    .5    .5    .5    .5
000274  000   2 LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000275  000       1   10   1.0   1.0   2.0   1.0  6.75 13.25    .5    .5    .5    .5
000276  000   2 LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (CONGESTED)
000277  000       1   13   1.0   1.0   2.0   2.0  6.75 13.25    .5    .5    .5    .5
000278  000   2 LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000279  000       1   10   1.0   1.0   2.0   2.0  6.75 13.25    .5    .5    .5    .5
000280  000   3 LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (CONGESTED)
000281  000       1   13   2.0   1.0   2.0   0.0   8.5 16.75    .5    .5   1.0   0.0
000282  000   3 LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)
000283  000       1   10   2.0   1.0   2.0   0.0   8.5 16.75    .5    .5   1.0   0.0
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000284  000  3 LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (CONGESTED)
000285  000      1    13   2.0   1.0   1.0   1.0   8.5 16.75    .5    .5    .5    .5
000286  000  3 LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000287  000      1    10   2.0   1.0   1.0   1.0   8.5 16.75    .5    .5    .5    .5
000288  000  3 LANE - 2 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (CONGESTED)
000289  000      1    13   2.0   1.0   3.0   0.0   8.5 16.75    .5    .5    .5    .5
000290  000  3 LANE - 2 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)
000291  000      1    10   2.0   1.0   3.0   0.0   8.5 16.75    .5    .5   1.0   0.0
000292  000  3 LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (CONGESTED)
000293  000      1    13   2.0   1.0   2.0   1.0   8.5 16.75    .5    .5   1.0   0.0
000294  000  3 LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000295  000      1    10   2.0   1.0   2.0   1.0   8.5 16.75    .5    .5    .5    .5
000296  000  3 LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (CONGESTED)
000297  000      1    13   2.0   1.0   2.0   2.0   8.5 16.75    .5    .5    .5    .5
000298  000  3 LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000299  000      1    10   2.0   1.0   2.0   2.0   8.5 13.75    .5    .5    .5    .5
000300  000  4 LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (CONGESTED)
000301  000      1    13   2.0   2.0   2.0   0.0   8.5  18.5    .5    .5   1.0   0.0
000302  000  4 LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)
000303  000      1    10   2.0   2.0   2.0   0.0   8.5  18.5    .5    .5   1.0   0.0
000304  000  4 LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (CONGESTED)
000305  000      1    13   2.0   2.0   1.0   1.0   8.5  18.5    .5    .5    .5    .5
000306  000  4 LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000307  000      1    10   2.0   2.0   1.0   1.0   8.5  18.5    .5    .5    .5    .5
000308  000  4 LANE - 2 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (CONGESTED)
000309  000      1    13   2.0   2.0   3.0   0.0   8.5  18.5    .5    .5    .5    .5
000310  000  4 LANE - 2 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)
000311  000      1    10   2.0   2.0   3.0   0.0   8.5  18.5    .5    .5   1.0    .5
000312  000  4 LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (CONGESTED)
000313  000      1    13   2.0   2.0   2.0   1.0   8.5  18.5    .5    .5   1.0    .5
000314  000  4 LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000315  000      1    10   2.0   2.0   2.0   1.0   8.5  18.5    .5    .5    .5    .5
000316  000  4 LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (CONGESTED)
000317  000      1    13   2.0   2.0   2.0   2.0   8.5  18.5    .5    .5    .5    .5
000318  000  4 LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000319  000      1    13   2.0   2.0   2.0   2.0   8.5  18.5    .5    .5    .5    .5
000320  000  3 LANE - 1 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (CONGESTED)
000321  000      1    13   3.0   0.0   2.0   0.0 10.25 10.25   1.0   0.0   1.0   0.0
000322  000  3 LANE - 1 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)
000323  000      1    10   3.0   0.0   2.0   0.0 10.25 10.25   1.0   0.0   1.0   0.0
000324  000  3 LANE - 1 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (CONGESTED)
000325  000      1    13   3.0   0.0   1.0   1.0 10.25 10.25   1.0   0.0    .5    .5
000326  000  3 LANE - 1 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000327  000      1    10   3.0   0.0   1.0   1.0 10.25 10.25   1.0   0.0    .5    .5
000328  000  3 LANE - 1 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (CONGESTED)
000329  000      1    13   3.0   0.0   3.0   0.0 10.25 10.25   1.0   0.0   1.0   0.0
000330  000  3 LANE - 1 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)
000331  000      1    10   3.0   0.0   3.0   0.0 10.25 10.25   1.0   0.0   1.0   0.0
000332  000  3 LANE - 1 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (CONGESTED)
000333  000      1    13   3.0   0.0   2.0   1.0 10.25 10.25   1.0   0.0    .5    .5
000334  000  3 LANE - 1 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000335  000      1    10   3.0   0.0   2.0   1.0 10.25 10.25   1.0   0.0    .5    .5
000336  000  3 LANE - 1 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (CONGESTED)
000337  000      1    13   3.0   0.0   2.0   2.0 10.25 10.25   1.0   0.0    .5    .5
000338  000  3 LANE - 1 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000339  000      1    10   3.0   0.0   2.0   2.0 10.25 10.25   1.0   0.0    .5    .5
000340  000  2 LANE - 1 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (CONGESTED)
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000341  000        1    13   2.0   0.0   2.0   0.0   8.5   8.5   1.0   0.0   1.0   0.0
000342  000  2 LANE - 1 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)
000343  000        1    10   2.0   0.0   2.0   0.0   8.5   8.5   1.0   0.0   1.0   0.0
000344  000  2 LANE - 1 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (CONGESTED)
000345  000        1    13   2.0   0.0   1.0   1.0   8.5   8.5   1.0   0.0    .5    .5
000346  000  2 LANE - 1 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000347  000        1    10   2.0   0.0   1.0   1.0   8.5   8.5   1.0   0.0    .5    .5
000348  000  2 LANE - 1 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (CONGESTED)
000349  000        1    13   2.0   0.0   3.0   0.0   8.5   8.5   1.0   0.0   1.0   0.0
000350  000  2 LANE - 1 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)
000351  000        1    10   2.0   0.0   3.0   0.0   8.5   8.5   1.0   0.0   1.0   0.0
000352  000  2 LANE - 1 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (CONGESTED)
000353  000        1    13   2.0   0.0   2.0   1.0   8.5   8.5   1.0   0.0    .5    .5
000354  000  2 LANE - 1 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000355  000        1    10   2.0   0.0   2.0   1.0   8.5   8.5   1.0   0.0    .5    .5
000356  000  2 LANE - 1 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (CONGESTED)
000357  000        1    13   2.0   0.0   2.0   2.0   8.5   8.5   1.0   0.0    .5    .5
000358  000  2 LANE - 1 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)
000359  000        1    10   2.0   0.0   2.0   2.0   8.5   8.5   1.0   0.0    .5    .5
000360  000  8 LANE LIMITED ACCESS
000361  000        4         4.0   4.0               17.   34.    .6    .4
000362  000  6 LANE LIMITED ACCESS
000363  000        4         3.0   3.0             15.25 28.75    .6    .4
000364  000  4 LANE LIMITED ACCESS
000365  000        4         2.0   2.0             13.50  23.5    .6    .4
000366  000  6 LANE ARTERIAL
000367  000        3         3.0   3.0             10.25 23.75    .6    .4
000368  000  4 LANE ARTERIAL
000369  000        3         2.0   2.0              8.50  18.5    .6    .4
000370  000  2 LANE ARTERIAL
000371  000        3         1.0   1.0              6.75 13.25    .6    .4
000372  000  2 LANE - 2 WAY UNSIGNALIZED WITH 2 LANE - 2 WAY OR 1 WAY (CONGESTED)
000373  000        0    13   1.0   1.0   1.0   1.0  6.75 13.25    .5    .5    .5    .5
000374  000  2 LANE - 2 WAY UNSIGNALIZED WITH 2 LANE - 2 WAY OR 1 WAY (NON-CONGESTED)
000375  000        0    10   1.0   1.0   1.0   1.0  6.75 13.25    .5    .5    .5    .5
000376  000  2 LANE - 2 WAY UNSIGNALIZED WITH 4 LANE - 2 WAY MAJOR ST. (CONGESTED)
000377  000        0    13   1.0   1.0   2.0   2.0  6.75 13.25    .5    .5    .5    .5
000378  000  2 LANE - 2 WAY UNSIGNALIZED WITH 4 LANE - 2 WAY MAJOR ST. (NON-CONGESTED)
000379  000        0    10   1.0   1.0   2.0   2.0  6.75 13.25    .5    .5    .5    .5
000380  000  4 LANE - 2 WAY UNSIGNALIZED WITH 4 LANE - 2 WAY MAJOR ST. (CONGESTED)
000381  000        0    13   2.0   2.0   2.0   2.0  8.50 18.50    .5    .5    .5    .5
000382  000  4 LANE - 2 WAY UNSIGNALIZED WITH 4 LANE - 2 WAY MAJOR ST. (NON-CONGESTED)
000383  000        0    10   2.0   2.0   2.0   2.0  8.50 18.50    .5    .5    .5    .5
000384  000  2 LANE - 1 WAY UNSIGNALIZED WITH 2 LANE - 2 WAY OR 1 WAY (CONGESTED)
000385  000        0    13   2.0   0.0   1.0   1.0  8.50 18.50   1.0   0.0    .5    .5
000386  000  2 LANE - 1 WAY UNSIGNALIZED WITH 2 LANE - 2 WAY OR 1 WAY (NON-CONGESTED)
000387  000        0    10   2.0   0.0   1.0   1.0  8.50 18.50   1.0   0.0    .5    .5
000388  000  2 LANE - 1 WAY UNSIGNALIZED WITH 4 LANE - TWO WAY MAJOR ST. (CONGESTED)
000389  000        0    13   2.0   0.0   2.0   2.0  8.50 18.50   1.0   0.0    .5    .5
000390  000  2 LANE - 1 WAY UNSIGNALIZED WITH 4 LANE - TWO WAY MAJOR ST. (NON-CONGESTED)
000391  000        0    10   2.0   0.0   2.0   2.0  8.50 18.50   1.0   0.0    .5    .5

END ELT.


$PRKFT PRINT,
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HOTSPOT

PROGRAM TO GENERATE HOT SPOT SCREENING CURVES

SCA/TECHNOLOGY DIVISION
BURLINGTON ROAD
BEDFORD, MASSACHUSETTS
(617) 275-9000

8 HOUR CO SPECIFIED	= 10.000	MG/M**3
8 HOUR CO BACKGROUND	= 2.900	MG/M**3
RATIO OF 8 HOUR TO 1 HOUR	= .700	
CRITICAL 1 HOUR CONCENTRATION	= 10.143	MG/M**3
MINIMUM QUEUE LENGTH SPECIFIED	= 40.000	METERS
ACCELERATION SPECIFIED	= 2.500	MPH/SEC
DECELERATION SPECIFIED	= -2.500	MPH/SEC
MINIMUM ACCURACY	= .050	MG/M**3
COMPUTATION INTERVAL, VOLUME	= 500.000	VEHICLES/HOUR
COMPUTATION INTERVAL, CAPACITY	= 100	VEHICLES/HOUR
PEAK HOUR FACTOR	= .085	
NUMBER OF SPEEDS USED	= 17	CLASSES
MINIMUM GREEN TIME SPECIFIED	= 8.000	SECONDS
MINIMUM CYCLE TIME SPECIFIED	= 40.000	SECONDS
MAXIMUM CYCLE TIME SPECIFIED	= 160.000	SECONDS
MINIMUM HEADWAY GAP SPECIFIED	= 4.000	SECONDS
CAPACITY SERVICE VOLUME (1&2)	=1800.000	VEHICLES/HOUR
CAPACITY SERVICE VOLUME (3&4)	=1800.000	VEHICLES/HOUR

COMPOSITE IDLE EMISSION FACTORS:
1977 = .41950 G/VEH/SEC
DESIRED SCENARIO= .36175 G/VEH/SEC
RATIO OF ABOVE = .86234

DETERIORATION FACTORS, MODEL YEAR (DOWN) BY POLLUTANT (ACCROSS)

1.37800	1.14600	1.00000	1.00000
1.43500	1.21400	1.00000	1.00000
1.68000	1.55600	1.00000	1.00000
1.70300	1.67100	1.00000	1.00000
1.74600	1.70800	1.00000	1.00000
1.87600	1.82400	1.00000	1.00000
2.11500	2.03300	1.00000	1.00000
1.59700	1.31200	1.00000	1.00000
1.57300	1.29000	1.00000	1.00000
1.68100	1.32700	1.00000	1.00000
1.77200	1.35100	1.00000	1.00000
1.45000	1.21800	1.00000	1.00000
1.46500	1.21700	1.00000	1.00000
1.65400	1.49700	1.00000	1.00000
1.73300	1.52400	1.00000	1.00000
1.59400	1.55800	1.00000	1.00000
1.63100	1.58400	1.00000	1.00000
1.42600	1.33900	1.00000	1.08400
1.18000	1.14400	1.00000	1.03600
.95300	.96300	1.00000	.99100

MODAL MODEL COEFFICIENTS FOR CO - AS INPUT

.10210419+01	-.46106476-01	.12750413-01	.19804664-01
.10467151-02	-.15174127+00	.19398060-01	-.79918522-04
-.27256622-03	.32066291+00	-.24132896-02	.32060244-03
.93576120+00	-.24910358-01	.43812852-01	.49628541-02
.44958130-03	-.47973134-01	.61538182-02	.10994070-04
-.67511966-04	.30338836+00	-.27355787-02	.13473761-03
.28043038+00	-.47583580-02	.43524541-01	.13808063-02
.10754808-03	-.21531656-02	.93090301-03	.11250070-04
-.19257031-05	.22921783+00	-.40214434-02	.12248126-03
.49613750+00	-.14627926-01	.61504323-01	-.10729437-02
.21254545-03	-.68023652-02	.97647379-03	.10525828-03
.37405029-04	.26291054+00	-.14189936-02	.84008745-04
.50066710+00	-.17586585-01	.59339337-01	-.18133272-02
.22920808-03	-.12368988-01	.11492474-02	.74215845-04
.14108437-04	.30531263+00	-.70244968-02	.10785337-03
.39664203+00	-.13213980-01	.58552373-01	-.19716325-02
.16135792-03	-.43251887-02	.21358313-03	.86380664-04
.40023762-04	.24617422+00	-.68550445-02	.10254829-03
.36676234+00	-.14121491-01	.68226576-01	-.32857144-02
.18291990-03	.22933292-02	.19526284-04	.13627447-03
.54617223-04	.22517568+00	-.46133995-02	.69841262-04
.10577946+01	-.67509890-01	.62050894-01	.11177700-01
.14054242-02	-.17354453+00	.21822363-01	.12219173-03
-.29136962-03	.30515999+00	-.65815225-02	.36294828-03
.68093568+00	-.48967101-01	.90703070-01	.41544996-02
.97224675-03	-.92593908-01	.13278501-01	.19100340-03
-.13010977-03	.19975567+00	-.77630468-02	.33748685-03
.10887880+01	-.71653783-01	.56213565-01	.12077432-01
.14173663-02	-.18283314+00	.22760791-01	.11450195-03
-.30368124-03	.31737489+00	-.97049810-02	.31322357-03
.12207556+01	-.89525878-01	.95823228-01	.61595142-02
.17752303-02	-.19405907+00	.24501167-01	.30660117-03
-.31120144-03	.30530828+00	-.67905560-02	.22574072-03
.14931040+01	-.10349673+00	.72227300-02	.59160900-02
.20053600-02	-.23721019+00	.26225590-01	.23920000-04
-.39850000-03	.32877001+00	-.91728700-02	.29820000-03
.11040086+01	-.79453880-01	.56303190-01	.17077200-02
.16181600-02	-.17064409+00	.19903410-01	.20100000-03
-.26382000-03	.25955878+00	-.75969700-02	.26727000-03
.28853572+00	-.12315690-01	.92407860-01	-.31505000-02
.16614000-03	.70702200-02	.46436000-03	.14813000-03
.56590000-04	.15976294+00	-.65233000-02	.10359000-03
.20974290+00	-.12848910-01	.96859620-01	-.66359300-02
.18599000-03	.21924630-01	-.15685900-02	.27883000-03
.12293000-03	.11387944+00	-.28685800-02	.47190000-04
.57665520+00	-.36277410-01	.21571960-01	.29442400-02
.63650000-03	-.52853430-01	.69414500-02	-.17560000-04
-.94470000-04	.25530096+00	-.76948500-02	.13531000-03
.54005560+00	-.39594090-01	.28321180-01	.14426300-02
.70014000-03	-.57096950-01	.73297800-02	.53550000-04
-.85880000-04	.20601881+00	-.58017900-02	.85580000-04
.21578521+00	-.12577798-01	.51477298-01	-.23425999-02
.16780000-03	-.15755999-02	.28229994-03	.12529999-03
.48500006-04	.11655778+00	-.46298988-02	.69899994-04
.21578521+00	-.12577798-01	.51477298-01	-.23425999-02
.16780000-03	-.15755999-02	.28229994-03	.12529999-03

.48500006-04	.11655778+00	-.46298988-02	.69899994-04
.21578521+00	-.12577798-01	.51477298-01	-.23425999-02
.16780000-03	-.15755999-02	.28229994-03	.12529999-03
.48500006-04	.11655778+00	-.46298988-02	.69899994-04

MODAL MODEL COEFFICIENTS FOR CO - AFTER APPLICATION OF DETERORIATION

.11701140+01	-.52838021-01	.14611973-01	.22696145-01
.12018275-02	-.17789550+00	.22230177-01	-.91586626-04
-.31236089-03	.37693969+00	-.27656299-02	.36741040-03
.77181410+00	-.29755575-01	.53188802-01	.60249049-02
.5457917C-03	-.58239385-01	.74707353-02	.13346801-04
-.91959527-04	.36831347+00	-.33209925-02	.16357146-03
.43691053+00	-.74135218-02	.67811235-01	.21512962-02
.16755991-03	-.37546320-02	.14503469-02	.17527609-04
-.30002454-05	.35712138+00	-.62654088-02	.19082580-03
.92904576+00	-.24443264-01	.10277372+00	-.17928869-02
.35516345-03	-.11366752-01	.16316877-02	.17588659-03
.62503803-04	.43932351+00	-.30295383-02	.14037861-03
.85513941+00	-.30037887-01	.10135159+00	-.30971629-02
.39148740-03	-.21126232-01	.19629146-02	.12676066-03
.24097210-04	.52147397+00	-.11997841-01	.18421356-03
.7234750C+00	-.24102117-01	.10679953+00	-.35962577-02
.29431685-03	-.78891442-02	.36957563-03	.15755833-03
.73003342-04	.44902178+00	-.12503601-01	.18704808-03
.74562784+00	-.28708991-01	.13870463+00	-.66798574-02
.37187616-03	.46623383-02	.39696935-04	.27704600-03
.11103681-03	.45778216+00	-.93790412-02	.14198729-03
.13878265+01	-.88572976-01	.81410773-01	.14665142-01
.18439166-02	-.22769042+00	.28630940-01	.16031555-03
-.36227694-03	.40036991+00	-.86349575-02	.47618814-03
.87840703+00	-.63167560-01	.11700696+00	.53593045-02
.12541983-02	-.11944614+00	.17258266-01	.24639439-03
-.16784160-03	.25768481+00	-.10014330-01	.43535804-03
.14448217+01	-.95084570-01	.74595401-01	.16026752-01
.18808451-02	-.24261958+00	.30230110-01	.15194409-03
-.40299501-03	.42115648+00	-.12878510-01	.41564768-03
.16692408+01	-.12094946+00	.12945718+00	.83215037-02
.23983361-02	-.26217380+00	.33101077-01	.41421818-03
-.42043315-03	.41247149+00	-.91740412-02	.30497571-03
.18186007+01	-.12605902+00	.87972851-02	.72057976-02
.24425285-02	-.28892201+00	.31942769-01	.29134560-04
-.46537300-03	.40044187+00	-.11172556-01	.36320760-03
.13435785+01	-.96695372-01	.68520982-01	.20782952-02
.19693007-02	-.20767366+00	.24100750-01	.24461700-03
-.32106894-03	.31588304+00	-.92455125-02	.32526759-03
.43193797+00	-.18436588-01	.13833457+00	-.47162985-02
.24871158-03	.10584119-01	.69514692-03	.22175061-03
.94715230-04	.23916512+00	-.97653801-02	.15507423-03
.31964818+00	-.19581739-01	.14761406+00	-.10113157-01
.28344876-03	.33413136-01	-.23905312-02	.42493692-03
.18734532-03	.17355227+00	-.43717159-02	.71917560-04
.89842880+00	-.56520205-01	.33609114-01	.45871259-02
.99166700-03	-.82345644-01	.10814779-01	-.27358480-04
-.14719426-03	.39775890+00	-.11988576-01	.21081298-03
.95544807+00	-.62717039-01	.44860749-01	.22851259-02
.11090218-02	-.90441569-01	.11610372-01	.84823200-04
-.13603392-03	.32633380+00	-.91900354-02	.13555872-03
.26893640+00	-.16841672-01	.68928102-01	-.31367413-02
.22468420-03	-.21097283-02	.37799962-03	.16777669-03
.54941508-04	.15607087+00	-.61994345-02	.93596092-04
.24685828+00	-.14389001-01	.58890029-01	-.26799343-02
.19196320-03	-.18024863-02	.32295113-03	.14334319-03

.55486007-04	.13334210+00	-.52966042-02	.79965593-04
.20763116+00	-.12112419-01	.49572638-01	-.22559237-02
.16159140-03	-.15173027-02	.27185484-03	.12066389-03
.46705506-04	.11224514+00	-.44585925-02	.67313694-04

MODEL YEAR MIX

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LDV STABILIZED EMISSION RATES: SPEED=57.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	1.75346	.35125	1.00222	.01711
CARBON MONOXIDE	26.69603	3.13274	23.56329	.29322
CARBON DIOXIDE	182.36217	77.37440	105.00777	1.46030
NITROGEN OXIDES	1.96167	.89618	1.06549	.00356

LDV STABILIZED EMISSION RATES: SPEED=57.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.66312	.35125	.31187	.01711
CARBON MONOXIDE	6.74764	3.13274	3.61490	.29322
CARBON DIOXIDE	45.39845	77.37440	-31.97596	1.46030
NITROGEN OXIDES	.11304	.89618	-.78314	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS =20.24972 G/VEH
CRUISE EMISSIONS = .37675 G/VEH SEC
HM IDLE EMISSIONS = .25285 G/VEH SEC
SUPR IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 290.487 METERS

DECELERATION DISTANCE = 290.487 METERS

TOTAL = 580.973 METERS

TOTAL TIME = 45.600 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=55.00 ACCELERATION= 2.50

HYDROCARBONS	1.28402	.32290	.96112	.01711
CARBON MONOXIDE	24.67365	2.87291	21.80075	.29322
CARBON DIOXIDE	171.32914	70.85526	100.47388	1.46030
NITROGEN OXIDES	1.82518	.79799	1.02719	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=55.00 ACCELERATION=-2.50

HYDROCARBONS	.63012	.32290	.30722	.01711
CARBON MONOXIDE	6.31831	2.87291	3.44540	.29322
CARBON DIOXIDE	43.43160	70.85526	-27.42366	1.46030
NITROGEN OXIDES	.11142	.79799	-.68657	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS =18.99736 G/VEH
CRUISE EMISSIONS = .35128 G/VEH SEC
*M IDLE EMISSIONS = .25285 G/VEH SEC
SUPE IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 270.459 METERS

DECELERATION DISTANCE = 270.459 METERS

TOTAL = 540.918 METERS

TOTAL TIME = 44.000 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=53.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	1.21561	.29648	.91933	.01711
CARBON MONOXIDE	22.77273	2.63499	20.13774	.29322
CARBON DIOXIDE	160.58539	64.73530	95.85008	1.46030
NITROGEN OXIDES	1.69306	.70730	.98577	.00356

LDV STABILIZED EMISSION RATES: SPEED=53.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.59750	.29648	.30103	.01711
CARBON MONOXIDE	5.91239	2.63499	3.27741	.29322
CARBON DIOXIDE	41.47339	64.73530	-23.26192	1.46030
NITROGEN OXIDES	.10889	.70730	-.59841	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS =17.74296 G/VEH
CRUISE EMISSIONS = .32987 G/VEH SEC
VM IDLE EMISSIONS = .25285 G/VEH SEC
SUPR IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 251.147 METERS

DECELERATION DISTANCE = 251.147 METERS

TOTAL = 502.294 METERS

TOTAL TIME = 42.400 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=50.00 ACCELERATION= 2.50

HYDROCARBONS	1.11589	.26025	.85564	.01711
CARBON MONOXIDE	20.13853	2.31645	17.82208	.29322
CARBON DIOXIDE	145.05690	56.27353	88.78337	1.46030
NITROGEN OXIDES	1.50325	.58467	.91858	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=50.00 ACCELERATION=-2.50

HYDROCARBONS	.54937	.26025	.28912	.01711
CARBON MONOXIDE	5.34510	2.31645	3.02864	.29322
CARBON DIOXIDE	38.55682	56.27353	-17.71665	1.46030
NITROGEN OXIDES	.10358	.58467	-.48109	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS =15.92025 G/VEH
CRUISE EMISSIONS = .30276 G/VEH SEC
FM IDLE EMISSIONS = .25285 G/VEH SEC
SUPR IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 223.520 METERS

DECELERATION DISTANCE = 223.520 METERS

TOTAL = 447.040 METERS

TOTAL TIME = 40.000 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=47.00 ACCELERATION= 2.50

HYDROCARBONS	1.01897	.22785	.79112	.01711
CARBON MONOXIDE	17.75054	2.04020	15.71034	.29322
CARBON DIOXIDE	130.24267	48.63191	81.61095	1.46030
NITROGEN OXIDES	1.32364	.47724	.84640	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=47.00 ACCELERATION=-2.50

HYDROCARBONS	.50230	.22785	.27445	.01711
CARBON MONOXIDE	4.82449	2.04020	2.78429	.29322
CARBON DIOXIDE	35.67163	48.63191	-12.96029	1.46030
NITROGEN OXIDES	.09670	.47724	-.38054	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS =14.20763 G/VEH
CRUISE EMISSIONS = .27977 G/VEH SEC
PM IDLE EMISSIONS = .25285 G/VEH SEC
SUPR IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 197.502 METERS

DECELERATION DISTANCE = 197.502 METERS

TOTAL = 395.005 METERS

TOTAL TIME = 37.600 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=45.00			ACCELERATION= 2.50	
HYDROCARBONS	.95610	.20824	.74786	.01711
CARBON MONOXIDE	16.28730	1.87745	14.40985	.29322
CARBON DIOXIDE	120.76928	43.97004	76.79924	1.46030
NITROGEN OXIDES	1.20967	.41356	.79611	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=45.00			ACCELERATION=-2.50	
HYDROCARBONS	.47157	.20824	.26333	.01711
CARBON MONOXIDE	4.50159	1.87745	2.62414	.29322
CARBON DIOXIDE	33.76900	43.97004	-10.20104	1.46030
NITROGEN OXIDES	.09139	.41356	-.32217	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS =13.13577 G/VEH
CRUISE EMISSIONS = .26618 G/VEH SEC
*M IDLE EMISSIONS = .25285 G/VEH SEC
SUPR IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 181.051 METERS

DECELERATION DISTANCE = 181.051 METERS

TOTAL = 362.102 METERS

TOTAL TIME = 36.000 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=42.00 ACCELERATION= 2.50

HYDROCARBONS	.86450	.18160	.66290	.01711
CARBON MONOXIDE	14.27357	1.66233	12.61124	.29322
CARBON DIOXIDE	107.17078	37.59134	69.57944	1.46030
NITROGEN OXIDES	1.04753	.32920	.71832	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=42.00 ACCELERATION=-2.50

HYDROCARBONS	.42655	.18160	.24496	.01711
CARBON MONOXIDE	4.05082	1.66233	2.38850	.29322
CARBON DIOXIDE	30.95160	37.59134	-6.63974	1.46030
NITROGEN OXIDES	.08252	.32920	-.24668	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS =11.61937 G/VEH
CRUISE EMISSIONS = .24895 G/VEH SEC
HM IDLE EMISSIONS = .25285 G/VEH SEC
SUPE IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 157.716 METERS

DECELERATION DISTANCE = 157.716 METERS

TOTAL = 315.431 METERS

TOTAL TIME = 33.600 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=40.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.70530	.16556	.63974	.01711
CARBON MONOXIDE	13.04480	1.53643	11.50837	.29322
CARBON DIOXIDE	98.51787	33.72807	64.78980	1.46030
NITROGEN OXIDES	.94539	.27997	.66542	.00356

LDV STABILIZED EMISSION RATES: SPEED=40.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.39731	.16556	.23175	.01711
CARBON MONOXIDE	3.77115	1.53643	2.23472	.29322
CARBON DIOXIDE	29.10077	33.72807	-4.62730	1.46030
NITROGEN OXIDES	.07614	.27997	-.20383	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS =10.67529 G/VEH
CRUISE EMISSIONS = .23911 G/VEH SEC
NM IDLE EMISSIONS = .25285 G/VEH SEC
SUPE IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 143.053 METERS

DECELERATION DISTANCE = 143.053 METERS

TOTAL = 286.106 METERS

TOTAL TIME = 32.000 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=37.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.71940	.14386	.57554	.01711
CARBON MONOXIDE	11.36023	1.37076	9.98947	.29322
CARBON DIOXIDE	86.16586	28.48226	57.66360	1.46030
NITROGEN OXIDES	.80129	.21588	.58541	.00356

LDV STABILIZED EMISSION RATES: SPEED=37.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.35469	.14386	.21082	.01711
CARBON MONOXIDE	3.38022	1.37076	2.00947	.29322
CARBON DIOXIDE	26.37091	28.48226	-2.11134	1.46030
NITROGEN OXIDES	.06607	.21588	-.14981	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS = 9.35287 G/VEH
CRUISE EMISSIONS = .22692 G/VEH SEC
4M IDLE EMISSIONS = .25285 G/VEH SEC
SUP8 IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 122.400 METERS

DECELERATION DISTANCE = 122.400 METERS

TOTAL = 244.799 METERS

TOTAL TIME = 29.600 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=30.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.53325	.10283	.43042	.01711
CARBON MONOXIDE	8.05536	1.07049	7.01486	.29322
CARBON DIOXIDE	60.32999	18.56179	41.76821	1.46030
NITROGEN OXIDES	.50854	.10662	.40192	.00356

LDV STABILIZED EMISSION RATES: SPEED=30.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.26170	.10283	.15887	.01711
CARBON MONOXIDE	2.58285	1.07049	1.51235	.29322
CARBON DIOXIDE	20.25452	18.56179	1.69274	1.46030
NITROGEN OXIDES	.04168	.10662	-.06494	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS = 6.67535 G/VEH
CRUISE EMISSIONS = .21035 G/VEH SEC
*M IDLE EMISSIONS = .25285 G/VEH SEC
SUPR IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 80.467 METERS

DECELERATION DISTANCE = 80.467 METERS

TOTAL = 160.934 METERS

TOTAL TIME = 24.000 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=25.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.41329	.08012	.33317	.01711
CARBON MONOXIDE	6.21809	.90664	5.31145	.29322
CARBON DIOXIDE	44.49670	13.20402	31.29268	1.46030
NITROGEN OXIDES	.33787	.05749	.28038	.00356

LDV STABILIZED EMISSION RATES: SPEED=25.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.20151	.08012	.12139	.01711
CARBON MONOXIDE	2.09169	.90664	1.18505	.29322
CARBON DIOXIDE	16.14213	13.20402	2.93811	1.46030
NITROGEN OXIDES	.02506	.05749	-.03243	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS = 5.08055 G/VEH
CRUISE EMISSIONS = .20853 G/VEH SEC
**M IDLE EMISSIONS = .25285 G/VEH SEC
SUPE IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 55.880 METERS

DECELERATION DISTANCE = 55.880 METERS

TOTAL = 111.760 METERS

TOTAL TIME = 20.000 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=20.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.30490	.06142	.24348	.01711
CARBON MONOXIDE	4.65892	.76292	3.89600	.29322
CARBON DIOXIDE	30.90595	9.04088	21.86507	1.46030
NITROGEN OXIDES	.20029	.02715	.17314	.00356

LDV STABILIZED EMISSION RATES: SPEED=20.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.14715	.06142	.08576	.01711
CARBON MONOXIDE	1.64701	.76292	.88409	.29322
CARBON DIOXIDE	12.26064	9.04088	3.23976	1.46030
NITROGEN OXIDES	.01058	.02715	-.01657	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS = 3.72279 G/VEH
CRUISE EMISSIONS = .21436 G/VEH SEC
PM IDLE EMISSIONS = .25285 G/VEH SEC
SUPP IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 35.763 METERS

DECELERATION DISTANCE = 35.763 METERS

TOTAL = 71.526 METERS

TOTAL TIME = 16.000 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=15.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.20873	.04538	.16335	.01711
CARBON MONOXIDE	3.33269	.61986	2.71283	.29322
CARBON DIOXIDE	19.60932	5.85563	13.75369	1.46030
NITROGEN OXIDES	.09677	.01092	.08585	.00356

LDV STABILIZED EMISSION RATES: SPEED=15.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.09928	.04538	.05390	.01711
CARBON MONOXIDE	1.23215	.61986	.61228	.29322
CARBON DIOXIDE	8.70287	5.85563	2.84724	1.46030
NITROGEN OXIDES	-.00047	.01092	-.01138	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS = 2.59876 G/VEH
CRUISE EMISSIONS = .22294 G/VEH SEC
PM IDLE EMISSIONS = .25285 G/VEH SEC
SUPB IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 20.117 METERS

DECELERATION DISTANCE = 20.117 METERS

TOTAL = 40.234 METERS

TOTAL TIME = 12.000 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=12.50 ACCELERATION= 2.50

HYDROCARBONS	.16543	.03795	.12748	.01711
CARBON MONOXIDE	2.73343	.54250	2.19094	.29322
CARBON DIOXIDE	14.53742	4.56199	10.27543	1.46030
NITROGEN OXIDES	.05807	.00662	.05145	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=12.50 ACCELERATION=-2.50

HYDROCARBONS	.07793	.03795	.03998	.01711
CARBON MONOXIDE	1.03069	.54250	.46820	.29322
CARBON DIOXIDE	7.03063	4.56199	2.46865	1.46030
NITROGEN OXIDES	-.00429	.00662	-.01092	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS = 2.16095 G/VEH
CRUISE EMISSIONS = .21700 G/VEH SEC
*M IDLE EMISSIONS = .25285 G/VEH SEC
SUP& IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 13.970 METERS

DECELERATION DISTANCE = 13.970 METERS

TOTAL = 27.940 METEPS

TOTAL TIME = 10.000 SECONDS

LDV STABILIZED EMISSION RATES: SPEED=10.00			ACCELERATION= 2.50	
HYDROCARBONS	.12543	.03069	.09474	.01711
CARBON MONOXIDE	2.16423	.45800	1.70623	.29322
CARBON DIOXIDE	10.65840	3.43155	7.22685	1.46030
NITROGEN OXIDES	.02825	.00410	.02415	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED=10.00			ACCELERATION=-2.50	
HYDROCARBONS	.05840	.03069	.02771	.01711
CARBON MONOXIDE	.83045	.45800	.37246	.29322
CARBON DIOXIDE	5.44163	3.43155	2.01008	1.46030
NITROGEN OXIDES	-.00678	.00410	-.01088	.00356
	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS = 1.66643 G/VEH
CRUISE EMISSIONS = .22900 G/VEH SEC
HM IDLE EMISSIONS = .25285 G/VEH SEC
SUPE IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 8.941 METERS

DECELERATION DISTANCE = 8.941 METERS

TOTAL = 17.882 METERS

TOTAL TIME = 8.000 SECONDS

LDV STABILIZED EMISSION RATES: SPEED= 7.50			ACCELERATION= 2.50	
HYDROCARBONS	.05860	.02343	.06537	.01711
CARBON MONOXIDE	1.61568	.36393	1.25175	.29322
CARBON DIOXIDE	7.07869	2.43722	4.64147	1.46030
NITROGEN OXIDES	.00741	.00276	.00464	.00356
	ACCEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

LDV STABILIZED EMISSION RATES: SPEED= 7.50			ACCELERATION=-2.50	
HYDROCARBONS	.04077	.02343	.01734	.01711
CARBON MONOXIDE	.62935	.36393	.26542	.29322
CARBON DIOXIDE	3.03997	2.43722	1.50274	1.46030
NITROGEN OXIDES	-.00775	.00276	-.01051	.00356
	ACCEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS = 1.20810 G/VEH
CRUISE EMISSIONS = .24262 G/VEH SEC
HM IDLE EMISSIONS = .25285 G/VEH SEC
SUB6 IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 5.029 METERS

DECELERATION DISTANCE = 5.029 METERS

TOTAL = 10.058 METERS

TOTAL TIME = 6.000 SECONDS

LDV STABILIZED EMISSION RATES: SPEED= 5.00 ACCELERATION= 2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.05564	.01600	.03963	.01711
CARBON MONOXIDE	1.07839	.25786	.82052	.29322
CARBON DIOXIDE	4.10476	1.55192	2.55285	1.46030
NITROGEN OXIDES	-.00433	.00202	-.00635	.00356

LDV STABILIZED EMISSION RATES: SPEED= 5.00 ACCELERATION=-2.50

	ACEL/DECEL G/VEH	CRUISE G/VEH	EXCESS A/D G/VEH	IDLE G/VEH*SEC
HYDROCARBONS	.02511	.01600	.00911	.01711
CARBON MONOXIDE	.42529	.25786	.16742	.29322
CARBON DIOXIDE	2.52974	1.55192	.97782	1.46030
NITROGEN OXIDES	-.00705	.00202	-.00908	.00356

TOTAL CO EMISSION RATES FOR DESIRED SCENARIO

AC/DEC EMISSIONS = .78094 G/VEH
CRUISE EMISSIONS = .25786 G/VEH SEC
*M IDLE EMISSIONS = .25285 G/VEH SEC
SUPB IDLE EMISSIONS= .36175 G/VEH SEC

ACCELERATION DISTANCE = 2.235 METERS

DECELERATION DISTANCE = 2.235 METERS

TOTAL = 4.470 METERS

TOTAL TIME = 4.000 SECONDS

2 LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 1. 1. 2. 0., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50. .50.1.00. .00.

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	72000.0	10.174993	85.4262	40.0000	1.2170	160.0000	8.0000	.02865271	.00492900	0.
1000.0	34930.0	10.095116	100.4116	40.0000	2.5474	151.6622	8.0000	.01449513	.01146470	0.
1500.0	31410.0	10.100844	67.1788	40.0000	2.5875	103.1583	8.0000	.01350602	.01185890	0.
2000.0	23000.0	10.114553	50.5798	40.0000	2.6268	78.8571	8.0000	.01256009	.01224715	0.
2500.0	24700.0	10.144447	40.6882	40.0000	2.6678	64.2857	8.0000	.01165734	.01264452	0.
3000.0	21400.0	10.111543	33.7654	40.0000	2.6879	54.2595	8.0000	.01075458	.01292633	0.
3500.0	19200.0	10.106498	28.9301	40.0000	2.7143	47.1660	8.0000	.00989107	.01324063	0.
4000.0	15100.0	10.126970	25.3875	40.0000	2.7459	41.8922	8.0000	.00906682	.01358312	0.
4500.0	11100.0	10.177454	23.1291	40.0000	2.8611	40.0000	8.5385	.00788931	.01414981	0.
5000.0	10400.0	10.128315	19.9518	40.0000	2.9057	40.0000	9.9870	.00800706	.01391359	0.
5500.0	9700.0	10.096342	17.4579	40.0000	2.9559	40.0000	11.4737	.00812481	.01370896	0.
6000.0	9100.0	10.128677	15.5646	40.0000	3.0210	40.0000	12.8940	.00828181	.01360390	0.
6500.0	8500.0	10.124446	13.9090	40.0000	3.0758	40.0000	14.3333	.00843881	.01343155	0.
7000.0	8000.0	10.166603	12.5949	40.0000	3.1391	40.0000	15.6667	.00863506	.01332579	0.
7500.0	7500.0	10.168209	11.3968	40.0000	3.1890	40.0000	17.0000	.00883131	.01314541	0.
8000.0	7000.0	10.128921	10.2936	40.0000	3.2239	40.0000	18.3333	.00902757	.01288977	0.
8500.0	6600.0	10.152355	9.4257	40.0000	3.2703	40.0000	19.5166	.00926307	.01273078	0.
9000.0	6200.0	10.145598	8.6204	40.0000	3.3037	40.0000	20.6842	.00949857	.01251623	0.
9500.0	5800.0	10.110402	7.8715	40.0000	3.3236	40.0000	21.8366	.00973407	.01224935	0.
10000.0	5500.0	10.164324	7.3167	40.0000	3.3640	40.0000	22.8065	.01000882	.01212769	0.
10500.0	5110.0	10.093897	6.6773	40.0000	3.3615	40.0000	23.9058	.01024825	.01179410	0.
11000.0	4800.0	10.100203	6.1898	40.0000	3.3765	40.0000	24.8481	.01051908	.01158669	0.
11500.0	4500.0	10.104854	5.7507	40.0000	3.3852	40.0000	25.7500	.01079383	.01137436	0.
12000.0	100.0	10.103671	5.7962	40.0000	3.5402	40.0000	26.0000	.00945932	.01192107	0.

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

? LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 1. 1. 2. 0., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	153000.0	10.283604	85.4262	40.0000	1.2170	160.0000	8.0000	.02796031	.00550733	******
1000.0	53000.0	10.101460	109.7354	40.0000	2.7326	160.0000	8.0000	.01018422	.01363297	0.
1500.0	32200.0	10.125506	78.3189	40.0000	2.9134	112.5765	8.0000	.00651790	.01538877	0.
2000.0	24600.0	10.114092	55.3517	40.0000	2.8136	82.8829	8.0000	.00603646	.01555585	0.
2500.0	21000.0	10.182760	42.2396	40.0000	2.7438	65.5842	8.0000	.00555503	.01587030	0.
3000.0	21200.0	10.141050	33.0522	40.0000	2.6457	53.6617	8.0000	.00503656	.01599934	0.
3500.0	17400.0	10.147130	26.8247	40.0000	2.5683	45.4072	8.0000	.00451809	.01621633	0.
4000.0	13500.0	10.177166	22.9413	40.0000	2.5544	40.0000	8.0345	.00342560	.01675198	0.
4500.0	9600.0	10.161757	19.0962	40.0000	2.5676	40.0000	9.7660	.00344412	.01667256	0.
5000.0	8700.0	10.129670	16.1694	40.0000	2.5876	40.0000	11.5985	.00346263	.01656245	0.
5500.0	9000.0	10.184265	14.1015	40.0000	2.6338	40.0000	13.2963	.00351819	.01659414	0.
6000.0	7300.0	10.148621	12.2820	40.0000	2.6636	40.0000	15.0451	.00357374	.01645977	0.
6500.0	6700.0	10.109998	10.8044	40.0000	2.6938	40.0000	16.6970	.00364780	.01631106	0.
7000.0	6210.0	10.098122	9.6283	40.0000	2.7293	40.0000	18.1961	.00374224	.01620183	0.
7500.0	5800.0	10.105427	8.6716	40.0000	2.7675	40.0000	19.5564	.00385149	.01612081	0.
8000.0	5500.0	10.189742	7.9587	40.0000	2.8215	40.0000	20.7037	.00398110	.01617176	0.
8500.0	5100.0	10.106018	7.1562	40.0000	2.8343	40.0000	22.0000	.00409220	.01592234	0.
9000.0	4800.0	10.108976	6.5597	40.0000	2.8646	40.0000	23.0870	.00422182	.01582357	0.
9500.0	4520.0	10.107365	6.0397	40.0000	2.8912	40.0000	24.1041	.00435514	.01571463	0.
10000.0	4300.0	10.168436	5.6441	40.0000	2.9307	40.0000	24.9720	.00449957	.01571572	0.
10500.0	4010.0	10.099294	5.1906	40.0000	2.9351	40.0000	25.9456	.00463104	.01548339	0.
11000.0	1.0	10.550465	5.3572	40.0000	3.1214	40.0000	26.0000	.00407387	.01653796	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 1. 1. 1. 1., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	74000.0	10.185913	85.4262	40.0000	1.2170	160.0000	8.0000	.05848293	.00492900	0.
1000.0	35300.0	10.186684	109.7354	40.0000	2.7326	160.0000	8.0000	.02849571	.01246233	0.
1500.0	31810.0	10.100872	72.4035	40.0000	2.7424	107.7213	8.0000	.02614854	.01269956	0.
2000.0	28500.0	10.110923	54.4983	40.0000	2.7805	82.1836	8.0000	.02394268	.01309048	0.
2500.0	25300.0	10.148020	43.9035	40.0000	2.8244	66.9361	8.0000	.02182316	.01351278	0.
3000.0	22100.0	10.124182	36.4931	40.0000	2.8468	56.4610	8.0000	.01970364	.01381424	0.
3500.0	19000.0	10.133314	31.3412	40.0000	2.8775	49.0667	8.0000	.01766263	.01416085	0.
4000.0	16000.0	10.171928	27.5828	40.0000	2.9150	43.5789	8.0000	.01570012	.01454569	0.
4500.0	11700.0	10.177377	25.0788	40.0000	2.9962	40.0000	8.1111	.01271709	.01512780	0.
5000.0	11100.0	10.178197	21.7822	40.0000	3.0512	40.0000	9.4224	.01263859	.01495208	0.
5500.0	10400.0	10.130554	19.0148	40.0000	3.0969	40.0000	10.8365	.01248159	.01470047	0.
6000.0	9800.0	10.166741	16.9642	40.0000	3.1637	40.0000	12.1899	.01240309	.01459489	0.
6500.0	9100.0	10.095267	15.0132	40.0000	3.2026	40.0000	13.6667	.01224609	.01429602	0.
7000.0	8600.0	10.158229	13.6413	40.0000	3.2730	40.0000	14.9487	.01224609	.01422330	0.
7500.0	8000.0	10.097270	12.2296	40.0000	3.3081	40.0000	16.3548	.01216759	.01392506	0.
8000.0	7600.0	10.179158	11.2592	40.0000	3.3772	40.0000	17.5128	.01224609	.01386964	0.
8500.0	7100.0	10.135593	10.2056	40.0000	3.4077	40.0000	18.7949	.01224609	.01358565	0.
9000.0	6700.0	10.157022	9.3789	40.0000	3.4515	40.0000	19.9299	.01232459	.01341033	0.
9500.0	6300.0	10.151922	8.6094	40.0000	3.4826	40.0000	21.0506	.01240309	.01318240	0.
10000.0	5900.0	10.121759	7.8919	40.0000	3.5004	40.0000	22.1572	.01248159	.01290476	0.
10500.0	5600.0	10.180130	7.3634	40.0000	3.5406	40.0000	23.0870	.01263859	.01278246	0.
11000.0	5200.0	10.108217	6.7343	40.0000	3.5330	40.0000	24.1605	.01271709	.01242203	0.
11500.0	4900.0	10.135109	6.2807	40.0000	3.5520	40.0000	25.0488	.01287409	.01223730	0.
12000.0	4600.0	10.149940	5.8591	40.0000	3.5613	40.0000	25.9157	.01303110	.01202866	0.

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	1.0	10.227754	6.0349	40.0000	3.7627	40.0000	26.0000	.00981336	.01281479	******

> LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 1. 1. 1. 1., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	150000.0	10.667812	85.4262	40.0000	1.2170	160.0000	8.0000	.05573546	.00550733	******
1000.0	64000.0	10.096733	109.7354	40.0000	2.7326	160.0000	8.0000	.02407179	.01363297	0.
1500.0	32600.0	10.123925	85.4650	40.0000	3.1145	118.0328	8.0000	.01262843	.01654328	0.
2000.0	29200.0	10.158484	61.0614	40.0000	3.0304	87.3418	8.0000	.01155446	.01679543	0.
2500.0	25700.0	10.159032	46.3206	40.0000	2.9398	68.8279	8.0000	.01044345	.01698967	0.
3000.0	22100.0	10.136892	36.4931	40.0000	2.8468	56.4610	8.0000	.00929542	.01714847	0.
3500.0	18400.0	10.095372	29.5016	40.0000	2.7533	47.6273	8.0000	.00811034	.01727637	0.
4000.0	14800.0	10.143686	24.7214	40.0000	2.6937	41.3586	8.0000	.00696230	.01757689	0.
4500.0	10400.0	10.123467	21.1221	40.0000	2.7177	40.0000	9.0805	.00551800	.01781585	0.
5000.0	9600.0	10.164220	18.0771	40.0000	2.7513	40.0000	10.6986	.00540690	.01783210	0.
5500.0	9800.0	10.165891	15.6220	40.0000	2.7831	40.0000	12.3846	.00529579	.01777084	0.
6000.0	8000.0	10.093390	13.5184	40.0000	2.8024	40.0000	14.1429	.00518469	.01756247	0.
6500.0	7400.0	10.106734	11.9846	40.0000	2.8440	40.0000	15.7050	.00514766	.01750527	0.
7000.0	6900.0	10.139090	10.7519	40.0000	2.8905	40.0000	17.1439	.00514766	.01747623	0.
7500.0	6400.0	10.105731	9.6194	40.0000	2.9204	40.0000	18.5827	.00514766	.01731685	0.
8000.0	6000.0	10.118505	8.7272	40.0000	2.9596	40.0000	19.8571	.00518469	.01723943	0.
8500.0	5610.0	10.093853	7.9178	40.0000	2.9875	40.0000	21.0964	.00522543	.01708682	0.
9000.0	5300.0	10.123791	7.2859	40.0000	3.0266	40.0000	22.1748	.00529579	.01703485	0.
9500.0	5000.0	10.134156	6.7173	40.0000	3.0583	40.0000	23.2069	.00536986	.01694310	0.
10000.0	4700.0	10.114746	6.1928	40.0000	3.0797	40.0000	24.2109	.00544393	.01679230	0.
10500.0	4420.0	10.096332	5.7358	40.0000	3.0985	40.0000	25.1501	.00552540	.01664157	0.
11000.0	4090.0	10.094941	5.3572	40.0000	3.1214	40.0000	26.0000	.00555503	.01653796	0.
11500.0	1.0	10.572272	5.5707	40.0000	3.3266	40.0000	26.0000	.00425923	.01772540	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 2 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 1. 1. 2. 0., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	70000.0	10.164073	85.4262	40.0000	1.2170	160.0000	8.0000	.01870930	.00492900	0.
1000.0	49800.0	10.134482	69.5366	40.0000	1.3926	119.4805	8.0000	.01381610	.00815712	0.
1500.0	44000.0	10.102995	48.5816	40.0000	2.0039	84.5617	8.0000	.01269093	.00886023	0.
2000.0	39700.0	10.124416	38.1626	40.0000	2.1137	66.9361	8.0000	.01169659	.00956657	0.
2500.0	33600.0	10.102110	31.5348	40.0000	2.1999	55.8140	8.0000	.01075458	.01016284	0.
3000.0	28800.0	10.113277	27.1542	40.0000	2.2857	48.3362	8.0000	.00989107	.01076403	0.
3500.0	24200.0	10.131635	23.9835	40.0000	2.3659	42.8756	8.0000	.00907990	.01134254	0.
4000.0	16000.0	10.159642	23.0823	40.0000	2.5634	40.0000	8.0000	.00732672	.01256805	0.
4500.0	14800.0	10.106351	19.7447	40.0000	2.6163	40.0000	9.5290	.00740522	.01242815	0.
5000.0	13800.0	10.097245	17.2071	40.0000	2.6775	40.0000	11.0845	.00753606	.01232908	0.
5500.0	13000.0	10.178750	15.3624	40.0000	2.7581	40.0000	12.5294	.00771922	.01235050	0.
6000.0	12000.0	10.096409	13.5184	40.0000	2.8024	40.0000	14.1429	.00785006	.01212572	0.
6500.0	11300.0	10.148120	12.2126	40.0000	2.8723	40.0000	15.5273	.00805939	.01207850	0.
7000.0	10600.0	10.155054	11.0264	40.0000	2.9286	40.0000	16.9052	.00826873	.01195442	0.
7500.0	10000.0	10.187847	10.0448	40.0000	2.9866	40.0000	18.1765	.00850423	.01185721	0.
8000.0	9300.0	10.110917	9.0370	40.0000	3.0136	40.0000	19.5352	.00871356	.01158918	0.
8500.0	8800.0	10.146429	8.3046	40.0000	3.0625	40.0000	20.6659	.00897523	.01147912	0.
9000.0	8300.0	10.156240	7.6284	40.0000	3.1000	40.0000	21.7706	.00923690	.01132495	0.
9500.0	7800.0	10.142457	7.0029	40.0000	3.1261	40.0000	22.8503	.00949857	.01113029	0.
10000.0	7300.0	10.107134	6.4241	40.0000	3.1404	40.0000	23.9058	.00976024	.01089865	0.
10500.0	6900.0	10.140575	5.9786	40.0000	3.1685	40.0000	24.8146	.01004807	.01076753	0.
11000.0	6500.0	10.161563	5.5681	40.0000	3.1880	40.0000	25.6957	.01033591	.01061503	0.
11500.0	2000.0	10.122590	5.5707	40.0000	3.3266	40.0000	26.0000	.00955090	.01107762	0.
12000.0	1.0	10.560671	5.7962	40.0000	3.5402	40.0000	26.0000	.00942033	.01192107	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 2 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 1. 1. 3. 0., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	150000.0	10.499397	85.4262	40.0000	1.2170	160.0000	8.0000	.01870193	.00550733	******
1000.0	52500.0	10.142084	102.2287	40.0000	2.5839	153.3333	8.0000	.00685120	.01282712	0.
1500.0	46800.0	10.147472	64.7171	40.0000	2.5133	100.9141	8.0000	.00633273	.01318530	0.
2000.0	41000.0	10.145805	46.1110	40.0000	2.4468	74.8193	8.0000	.00580192	.01353963	0.
2500.0	35100.0	10.127176	35.0148	40.0000	2.3818	59.2063	8.0000	.00525876	.01387310	0.
3000.0	29200.0	10.126090	27.8318	40.0000	2.3281	48.9844	8.0000	.00471560	.01423669	0.
3500.0	23300.0	10.125073	22.8087	40.0000	2.2802	41.7725	8.0000	.00417244	.01460040	0.
4000.0	14100.0	10.126492	19.8645	40.0000	2.3514	40.0000	8.9403	.00322192	.01524092	0.
4500.0	12700.0	10.095863	16.5698	40.0000	2.3717	40.0000	10.8817	.00323426	.01518203	0.
5000.0	11500.0	10.093315	14.1555	40.0000	2.4065	40.0000	12.7895	.00327129	.01515481	0.
5500.0	10500.0	10.100067	12.2942	40.0000	2.4476	40.0000	14.6000	.00333302	.01512703	0.
6000.0	9700.0	10.132324	10.8490	40.0000	2.4952	40.0000	16.2513	.00341943	.01512651	0.
6500.0	9000.0	10.147395	9.6434	40.0000	2.5388	40.0000	17.8000	.00351819	.01508822	0.
7000.0	8400.0	10.164058	8.6467	40.0000	2.5813	40.0000	19.2222	.00362929	.01504441	0.
7500.0	7800.0	10.117040	7.7335	40.0000	2.6082	40.0000	20.6220	.00374039	.01489129	0.
8000.0	7300.0	10.100744	6.9960	40.0000	2.6388	40.0000	21.8705	.00386383	.01478265	0.
8500.0	6900.0	10.135265	6.4184	40.0000	2.6778	40.0000	22.9542	.00399962	.01475296	0.
9000.0	6500.0	10.137296	5.8914	40.0000	2.7071	40.0000	24.0000	.00413541	.01466751	0.
9500.0	6100.0	10.109093	5.4106	40.0000	2.7268	40.0000	25.0098	.00427120	.01453017	0.
10000.0	5800.0	10.165019	5.0605	40.0000	2.7632	40.0000	25.8462	.00441933	.01452696	0.
10500.0	1.0	10.467806	5.1548	40.0000	2.9241	40.0000	26.0000	.00388864	.01540579	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

3 LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 1. 1. 2. 1., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	72000.0	10.174993	85.4262	40.0000	1.2170	160.0000	8.0000	.04278281	.00492900	0.
1000.0	34930.0	10.095116	100.4116	40.0000	2.5474	151.6622	8.0000	.02135019	.01146470	0.
1500.0	31410.0	10.100844	67.1788	40.0000	2.5875	103.1583	8.0000	.01967028	.01185890	0.
2000.0	25000.0	10.114553	50.5798	40.0000	2.6268	78.8571	8.0000	.01805513	.01224715	0.
2500.0	24700.0	10.144447	40.6882	40.0000	2.6678	64.2857	8.0000	.01650475	.01264452	0.
3000.0	21400.0	10.111543	33.7654	40.0000	2.6879	54.2595	8.0000	.01495436	.01292633	0.
3500.0	18200.0	10.106498	28.9301	40.0000	2.7143	47.1660	8.0000	.01346285	.01324063	0.
4000.0	15100.0	10.126970	25.3875	40.0000	2.7459	41.8922	8.0000	.01203021	.01358312	0.
4500.0	11100.0	10.177454	23.1291	40.0000	2.8611	40.0000	8.5385	.01006770	.01414981	0.
5000.0	10400.0	10.122315	19.9518	40.0000	2.9057	40.0000	9.9870	.01004807	.01391359	0.
5500.0	9700.0	10.096342	17.4579	40.0000	2.9559	40.0000	11.4737	.01002845	.01370896	0.
6000.0	9100.0	10.128677	15.5646	40.0000	3.0210	40.0000	12.8940	.01006770	.01360390	0.
6500.0	8500.0	10.124446	13.9090	40.0000	3.0758	40.0000	14.3333	.01010695	.01343155	0.
7000.0	8000.0	10.166603	12.5949	40.0000	3.1391	40.0000	15.6667	.01020507	.01332579	0.
7500.0	7500.0	10.168209	11.3968	40.0000	3.1890	40.0000	17.0000	.01030320	.01314541	0.
8000.0	7000.0	10.128921	10.2936	40.0000	3.2239	40.0000	18.3333	.01040133	.01288977	0.
8500.0	6600.0	10.152355	9.4257	40.0000	3.2703	40.0000	19.5166	.01055833	.01273078	0.
9000.0	6200.0	10.145598	8.6204	40.0000	3.3037	40.0000	20.6842	.01071533	.01251623	0.
9500.0	5800.0	10.110402	7.8715	40.0000	3.3236	40.0000	21.8366	.01087233	.01224935	0.
10000.0	5500.0	10.164324	7.3167	40.0000	3.3640	40.0000	22.8065	.01108821	.01212769	0.
10500.0	5110.0	10.093897	6.6773	40.0000	3.3615	40.0000	23.9058	.01125109	.01179410	0.
11000.0	4800.0	10.100203	6.1898	40.0000	3.3765	40.0000	24.8481	.01146108	.01158669	0.
11500.0	4500.0	10.104854	5.7507	40.0000	3.3852	40.0000	25.7500	.01167696	.01137436	0.
12000.0	100.0	10.103671	5.7962	40.0000	3.5402	40.0000	26.0000	.00947894	.01192107	0.

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

3 LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 1. 1. 2. 1., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	155000.0	10.283604	85.4262	40.0000	1.2170	160.0000	8.0000	.04184789	.00550733	******
1000.0	53000.0	10.101460	109.7354	40.0000	2.7326	160.0000	8.0000	.01509116	.01363297	0.
1500.0	33200.0	10.125506	78.3189	40.0000	2.9134	112.5765	8.0000	.00949910	.01538877	0.
2000.0	23600.0	10.114092	55.3517	40.0000	2.8136	82.8829	8.0000	.00868436	.01555585	0.
2500.0	25000.0	10.182760	42.2396	40.0000	2.7438	65.5842	8.0000	.00796962	.01587030	0.
3000.0	21200.0	10.141050	33.0522	40.0000	2.6457	53.6617	8.0000	.00699934	.01599934	0.
3500.0	17400.0	10.147130	26.8247	40.0000	2.5683	45.4072	8.0000	.00612905	.01621633	0.
4000.0	10500.0	10.177166	22.9413	40.0000	2.5544	40.0000	8.0345	.00439773	.01675198	0.
4500.0	9600.0	10.161757	19.0962	40.0000	2.5676	40.0000	9.7660	.00433292	.01667256	0.
5000.0	8700.0	10.129670	16.1694	40.0000	2.5876	40.0000	11.5985	.00426811	.01656245	0.
5500.0	8000.0	10.184265	14.1015	40.0000	2.6338	40.0000	13.2963	.00425886	.01659414	0.
6000.0	7300.0	10.148621	12.2820	40.0000	2.6636	40.0000	15.0451	.00424960	.01645977	0.
6500.0	6700.0	10.109998	10.8044	40.0000	2.6938	40.0000	16.6970	.00426811	.01631106	0.
7000.0	6210.0	10.098122	9.6283	40.0000	2.7293	40.0000	18.1961	.00431718	.01620183	0.
7500.0	5800.0	10.105427	8.6716	40.0000	2.7675	40.0000	19.5564	.00438847	.01612081	0.
8000.0	5500.0	10.189742	7.9587	40.0000	2.8215	40.0000	20.7037	.00449032	.01617176	0.
8500.0	5100.0	10.106018	7.1562	40.0000	2.8343	40.0000	22.0000	.00456438	.01592234	0.
9000.0	4800.0	10.108976	6.5597	40.0000	2.8646	40.0000	23.0870	.00466622	.01582357	0.
9500.0	4520.0	10.107365	6.0397	40.0000	2.8912	40.0000	24.1041	.00477362	.01571463	0.
10000.0	4300.0	10.168436	5.6441	40.0000	2.9307	40.0000	24.9720	.00489768	.01571572	0.
10500.0	4010.0	10.099294	5.1906	40.0000	2.9351	40.0000	25.9456	.00500230	.01549339	0.
11000.0	1.0	10.550465	5.3572	40.0000	3.1214	40.0000	26.0000	.00407397	.01653796	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 1. 1. 2. 2., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	71200.0	10.105542	82.5618	40.0000	1.1813	155.7855	8.0000	.02833871	.00477557	0.
1000.0	62300.0	10.095135	50.4057	40.0000	1.4500	95.4742	8.0000	.02523794	.00610136	0.
1500.0	55000.0	10.151467	38.6760	40.0000	1.6694	72.9515	8.0000	.02276517	.00725588	0.
2000.0	49100.0	10.104780	31.6610	40.0000	1.8273	59.7510	8.0000	.02044940	.00815512	0.
2500.0	42000.0	10.154866	27.5704	40.0000	1.9858	51.6693	8.0000	.01844764	.00908125	0.
3000.0	36000.0	10.134702	24.4223	40.0000	2.1116	45.6198	8.0000	.01648512	.00986459	0.
3500.0	30200.0	10.098474	22.0180	40.0000	2.2218	41.0104	8.0000	.01460111	.01058320	0.
4000.0	23400.0	10.104295	22.0413	40.0000	2.4962	40.0000	8.2676	.01114708	.01210078	0.
4500.0	19200.0	10.128524	19.0962	40.0000	2.5676	40.0000	9.7660	.01106858	.01209371	0.
5000.0	15000.0	10.150352	16.7860	40.0000	2.6413	40.0000	11.2657	.01099008	.01208238	0.
5500.0	15700.0	10.094665	14.7563	40.0000	2.6989	40.0000	12.8845	.01087233	.01195158	0.
6000.0	15700.0	10.130524	13.2501	40.0000	2.7727	40.0000	14.3285	.01087233	.01192894	0.
6500.0	14700.0	10.120606	11.8994	40.0000	2.8334	40.0000	15.7726	.01087233	.01182505	0.
7000.0	13800.0	10.115121	10.7519	40.0000	2.8905	40.0000	17.1439	.01091158	.01171092	0.
7500.0	13000.0	10.121634	9.7786	40.0000	2.9453	40.0000	18.4286	.01099008	.01159998	0.
8000.0	12200.0	10.092897	8.8819	40.0000	2.9867	40.0000	19.6950	.01106858	.01142647	0.
8500.0	11600.0	10.147797	8.2040	40.0000	3.0431	40.0000	20.7762	.01122558	.01136519	0.
9000.0	11000.0	10.180955	7.5794	40.0000	3.0896	40.0000	21.8276	.01138258	.01126532	0.
9500.0	10300.0	10.131514	6.9313	40.0000	3.1092	40.0000	22.9386	.01150033	.01103696	0.
10000.0	9700.0	10.124789	6.4009	40.0000	3.1343	40.0000	23.9360	.01165734	.01086630	0.
10500.0	9100.0	10.101901	5.9110	40.0000	3.1492	40.0000	24.9070	.01181434	.01066696	0.
11000.0	8600.0	10.133230	5.5243	40.0000	3.1743	40.0000	25.7582	.01201059	.01054573	0.
11500.0	4000.0	10.114228	5.5707	40.0000	3.3266	40.0000	26.0000	.01059758	.01107762	0.
12000.0	1.0	10.332084	5.7962	40.0000	3.5402	40.0000	26.0000	.00942046	.01192107	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 1. 1. 2. 2., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	153000.0	10.393793	85.4262	40.0000	1.2170	160.0000	8.0000	.02796031	.00550733	******
1000.0	69200.0	10.119343	92.6392	40.0000	2.3688	144.2509	8.0000	.01318394	.01179666	0.
1500.0	61400.0	10.119223	59.4966	40.0000	2.3529	95.9444	8.0000	.01192480	.01233665	0.
2000.0	53600.0	10.111844	43.0306	40.0000	2.3198	71.8750	8.0000	.01066566	.01286375	0.
2500.0	46000.0	10.155167	33.5456	40.0000	2.3057	57.8010	8.0000	.00944355	.01346377	0.
3000.0	38200.0	10.108663	26.9073	40.0000	2.2701	48.0976	8.0000	.00818441	.01392143	0.
3500.0	30600.0	10.097515	22.3773	40.0000	2.2484	41.3586	8.0000	.00696230	.01442476	0.
4000.0	19000.0	10.142691	20.1212	40.0000	2.3688	40.0000	8.8519	.00499953	.01536977	0.
4500.0	17200.0	10.117215	16.8510	40.0000	2.3940	40.0000	10.7405	.00485139	.01535219	0.
5000.0	15600.0	10.101775	14.4077	40.0000	2.4297	40.0000	12.6250	.00474029	.01533534	0.
5500.0	14300.0	10.117676	12.5607	40.0000	2.4758	40.0000	14.3913	.00468474	.01534848	0.
6000.0	13200.0	10.132308	11.0764	40.0000	2.5225	40.0000	16.0476	.00466622	.01534229	0.
6500.0	12200.0	10.111818	9.8085	40.0000	2.5614	40.0000	17.6349	.00466622	.01526521	0.
7000.0	11400.0	10.128225	8.8071	40.0000	2.6060	40.0000	19.0472	.00470326	.01523654	0.
7500.0	10700.0	10.146284	7.9673	40.0000	2.6487	40.0000	20.3463	.00475881	.01520226	0.
8000.0	10000.0	10.114156	7.1977	40.0000	2.6781	40.0000	21.6154	.00481436	.01507890	0.
8500.0	9400.0	10.105824	6.5652	40.0000	2.7097	40.0000	22.7576	.00488843	.01498923	0.
9000.0	8900.0	10.135799	6.0576	40.0000	2.7471	40.0000	23.7658	.00498101	.01495901	0.
9500.0	8400.0	10.136922	5.5945	40.0000	2.7759	40.0000	24.7372	.00507359	.01488114	0.
10000.0	7900.0	10.117066	5.1718	40.0000	2.7960	40.0000	25.6738	.00516618	.01475892	0.
10500.0	100.0	10.177164	5.1548	40.0000	2.9241	40.0000	26.0000	.00390704	.01540579	0.
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

3 LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 2. 1. 2. 0., DISTANCES= 8.5,16.7, DIRECTIONAL SPLIT= .50, .50,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	76000.0	10.101396	85.4262	40.0000	1.2170	160.0000	8.0000	.03012460	.00264884	0.
1000.0	43000.0	10.173976	109.7354	40.0000	2.7326	160.0000	8.0000	.01746638	.00660430	0.
1500.0	32400.0	10.104297	81.7370	40.0000	3.0103	115.2401	8.0000	.01360022	.00765502	0.
2000.0	29200.0	10.184629	61.0614	40.0000	3.0304	87.3418	8.0000	.01263859	.00798186	0.
2500.0	25900.0	10.130621	47.6247	40.0000	3.0012	69.8145	8.0000	.01163771	.00816017	0.
3000.0	22700.0	10.146914	39.1676	40.0000	2.9991	58.4952	8.0000	.01067608	.00841039	0.
3500.0	19500.0	10.140714	33.0360	40.0000	2.9899	50.3343	8.0000	.00971445	.00863370	0.
4000.0	16300.0	10.117240	28.3889	40.0000	2.9760	44.1718	8.0000	.00875281	.00883634	0.
4500.0	12000.0	10.159911	25.6550	40.0000	3.0354	40.0000	8.0000	.00735943	.00925240	0.
5000.0	11100.0	10.106178	21.7822	40.0000	3.0512	40.0000	9.4224	.00730055	.00913606	0.
5500.0	10400.0	10.151287	19.0148	40.0000	3.0969	40.0000	10.8365	.00732018	.00911756	0.
6000.0	9600.0	10.108398	16.5547	40.0000	3.1225	40.0000	12.3846	.00730055	.00900399	0.
6500.0	9000.0	10.182282	14.8258	40.0000	3.1813	40.0000	13.7742	.00735943	.00900571	0.
7000.0	8300.0	10.132765	13.1136	40.0000	3.2061	40.0000	15.3007	.00737905	.00887200	0.
7500.0	7700.0	10.112339	11.7276	40.0000	3.2368	40.0000	16.7368	.00743793	.00876088	0.
8000.0	7200.0	10.130026	10.6129	40.0000	3.2753	40.0000	18.0526	.00753606	.00868316	0.
8500.0	6700.0	10.104933	9.5806	40.0000	3.2980	40.0000	19.3684	.00763418	.00855426	0.
9000.0	6300.0	10.136434	8.7710	40.0000	3.3336	40.0000	20.5294	.00777156	.00848086	0.
9500.0	5900.0	10.136272	8.0180	40.0000	3.3558	40.0000	21.6753	.00790893	.00836957	0.
10000.0	5500.0	10.105599	7.3167	40.0000	3.3640	40.0000	22.8065	.00804631	.00822178	0.
10500.0	5200.0	10.159196	6.8023	40.0000	3.3948	40.0000	23.7516	.00822294	.00816261	0.
11000.0	4820.0	10.099619	6.2168	40.0000	3.3844	40.0000	24.8129	.00836816	.00797779	0.
11500.0	4510.0	10.101049	5.7638	40.0000	3.3894	40.0000	25.7320	.00854086	.00785743	0.
12000.0	4200.0	10.169593	5.7962	40.0000	3.5402	40.0000	26.0000	.00745755	.00820801	0.

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	1.0	10.685824	6.0349	40.0000	3.7627	40.0000	26.0000	.00735982	.00878773	******

? LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 1. 2. 0., DISTANCES= 8.5,16.7, DIRECTIONAL SPLIT= .50, .50,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	150000.0	9.979944	85.4262	40.0000	1.2170	160.0000	8.0000	.02791402	.00322717	******
1000.0	73000.0	10.137651	109.7354	40.0000	2.7326	160.0000	8.0000	.01379499	.00777494	0.
1500.0	32800.0	10.151957	89.5494	40.0000	3.2268	120.9642	8.0000	.00649013	.01003178	0.
2000.0	29100.0	10.146482	60.0325	40.0000	2.9919	86.5656	8.0000	.00594388	.01016287	0.
2500.0	25100.0	10.139685	42.7811	40.0000	2.7701	66.0287	8.0000	.00534209	.01030966	0.
3000.0	20800.0	10.129024	31.7033	40.0000	2.5651	52.5048	8.0000	.00468474	.01046910	0.
3500.0	16200.0	10.100951	24.1203	40.0000	2.3758	43.0018	8.0000	.00397185	.01062498	0.
4000.0	9400.0	10.149449	19.8645	40.0000	2.3514	40.0000	8.9403	.00285158	.01099919	0.
4500.0	8200.0	10.152575	16.0175	40.0000	2.3274	40.0000	11.1732	.00276826	.01099659	0.
5000.0	7200.0	10.150104	13.2862	40.0000	2.3253	40.0000	13.3934	.00272196	.01097578	0.
5500.0	6400.0	10.137346	11.2386	40.0000	2.3338	40.0000	15.4674	.00271271	.01093114	0.
6000.0	5800.0	10.158006	9.7184	40.0000	2.3556	40.0000	17.3390	.00274048	.01091497	0.
6500.0	5300.0	10.164258	8.4918	40.0000	2.3766	40.0000	19.0339	.00278677	.01087581	0.
7000.0	4900.0	10.190947	7.5281	40.0000	2.4026	40.0000	20.5294	.00285158	.01085533	0.
7500.0	4500.0	10.139979	6.6483	40.0000	2.4116	40.0000	22.0000	.00291639	.01074194	0.
8000.0	4200.0	10.159386	5.9944	40.0000	2.4348	40.0000	23.2295	.00299972	.01070699	0.
8500.0	3900.0	10.128159	5.4008	40.0000	2.4458	40.0000	24.4194	.00308304	.01061146	0.
9000.0	3630.0	10.098495	4.9037	40.0000	2.4558	40.0000	25.5036	.00317192	.01051607	0.
9500.0	1.0	10.281874	4.7797	40.0000	2.5511	40.0000	26.0000	.00263882	.01086904	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

1 LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 2. 1. 1. 1., DISTANCES= 8.5,16.7, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	77000.0	10.099633	85.4262	40.0000	1.2170	160.0000	8.0000	.06073982	.00264884	0.
1000.0	45000.0	10.119253	109.7354	40.0000	2.7326	160.0000	8.0000	.03591401	.00660430	0.
1500.0	32630.0	10.104949	86.0537	40.0000	3.1308	118.4634	8.0000	.02649787	.00800293	0.
2000.0	29500.0	10.186547	64.3643	40.0000	3.1528	89.7561	8.0000	.02433518	.00833847	0.
2500.0	26300.0	10.157640	50.4525	40.0000	3.1326	71.8750	8.0000	.02211754	.00854425	0.
3000.0	23100.0	10.112702	41.1589	40.0000	3.1103	59.9348	8.0000	.01989990	.00873745	0.
3500.0	20000.0	10.140867	34.9029	40.0000	3.1116	51.6693	8.0000	.01776076	.00899454	0.
4000.0	16900.0	10.141938	30.1316	40.0000	3.1061	45.4072	8.0000	.01562161	.00922515	0.
4500.0	13800.0	10.126211	26.3741	40.0000	3.0957	40.4989	8.0000	.01348247	.00943467	0.
5000.0	11600.0	10.139274	23.2296	40.0000	3.1632	40.0000	9.0482	.01204984	.00956506	0.
5500.0	10900.0	10.167090	20.2177	40.0000	3.2028	40.0000	10.4146	.01179471	.00952185	0.
6000.0	10100.0	10.123018	17.5949	40.0000	3.2265	40.0000	11.9068	.01146108	.00940120	0.
6500.0	9400.0	10.129468	15.5846	40.0000	3.2666	40.0000	13.3522	.01120596	.00933117	0.
7000.0	8700.0	10.095771	13.8194	40.0000	3.2954	40.0000	14.8344	.01095083	.00921073	0.
7500.0	8100.0	10.094318	12.3986	40.0000	3.3318	40.0000	16.2308	.01077420	.00911797	0.
8000.0	7600.0	10.131764	11.2592	40.0000	3.3772	40.0000	17.5128	.01067608	.00906123	0.
8500.0	7100.0	10.129624	10.2056	40.0000	3.4077	40.0000	18.7949	.01057795	.00895480	0.
9000.0	6700.0	10.182210	9.3789	40.0000	3.4515	40.0000	19.9299	.01055833	.00890426	0.
9500.0	6200.0	10.105992	8.4608	40.0000	3.4511	40.0000	21.2038	.01046020	.00870483	0.
10000.0	5800.0	10.095111	7.7473	40.0000	3.4666	40.0000	22.3165	.01044058	.00857461	0.
10500.0	5500.0	10.164445	7.2222	40.0000	3.5045	40.0000	23.2500	.01049945	.00853229	0.
11000.0	5100.0	10.103303	6.5972	40.0000	3.4942	40.0000	24.3292	.01047983	.00833898	0.
11500.0	4800.0	10.133450	6.1471	40.0000	3.5107	40.0000	25.2209	.01053870	.00824746	0.
12000.0	4000.0	10.154055	5.7962	40.0000	3.5402	40.0000	26.0000	.01020507	.00820801	0.

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	1.0	10.341496	6.0349	40.0000	3.7627	40.0000	26.0000	.00736021	.00878773	******

* LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 1. 1. 1., DISTANCES= 8.5,16.7, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	150000.0	9.853495	85.4262	40.0000	1.2170	160.0000	8.0000	.05568917	.00322717	******
1000.0	80000.0	10.169930	109.7354	40.0000	2.7326	160.0000	8.0000	.02990457	.00777494	0.
1500.0	53030.0	10.107032	94.7617	40.0000	3.3676	124.5206	8.0000	.01264880	.01045494	0.
2000.0	39500.0	10.146755	64.3643	40.0000	3.1528	89.7561	8.0000	.01148039	.01063895	0.
2500.0	25700.0	10.161423	46.3206	40.0000	2.9398	68.8279	8.0000	.01021200	.01080782	0.
3000.0	21600.0	10.148224	34.5065	40.0000	2.7315	54.8708	8.0000	.00883250	.01095983	0.
3500.0	17200.0	10.112191	26.3392	40.0000	2.5342	44.9878	8.0000	.00734190	.01110131	0.
4000.0	13000.0	10.108896	21.4687	40.0000	2.4586	40.0000	8.4286	.00481436	.01145307	0.
4500.0	8800.0	10.118463	17.2799	40.0000	2.4278	40.0000	10.5338	.00450883	.01145843	0.
5000.0	7800.0	10.158289	14.4077	40.0000	2.4297	40.0000	12.6250	.00427737	.01148969	0.
5500.0	6900.0	10.123462	12.1172	40.0000	2.4288	40.0000	14.7419	.00408295	.01142120	0.
6000.0	6200.0	10.105292	10.3958	40.0000	2.4400	40.0000	16.6721	.00396259	.01136153	0.
6500.0	5700.0	10.156706	9.1492	40.0000	2.4703	40.0000	18.3115	.00391630	.01137713	0.
7000.0	5200.0	10.112906	8.0068	40.0000	2.4805	40.0000	19.9508	.00387000	.01127320	0.
7500.0	4800.0	10.099536	7.1123	40.0000	2.4974	40.0000	21.3902	.00386075	.01120143	0.
8000.0	4500.0	10.150686	6.4436	40.0000	2.5282	40.0000	22.6000	.00388852	.01120461	0.
8500.0	4200.0	10.153817	5.8346	40.0000	2.5473	40.0000	23.7717	.00391630	.01114752	0.
9000.0	3900.0	10.110899	5.2799	40.0000	2.5544	40.0000	24.9070	.00394407	.01103261	0.
9500.0	3700.0	10.158634	4.9101	40.0000	2.5884	40.0000	25.7879	.00400888	.01106313	0.
10000.0	1.0	10.561906	4.9626	40.0000	2.7341	40.0000	26.0000	.00277788	.01167608	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

* LANE - 2 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 2. 1. 3. 0., DISTANCES= 8.5,16.7, DIRECTIONAL SPLIT= .50. .50.1.00. .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	75000.0	10.103159	85.4262	40.0000	1.2170	160.0000	8.0000	.01991952	.00264884	0.
1000.0	51300.0	10.102672	54.6666	40.0000	2.2219	136.1842	8.0000	.01401235	.00525918	0.
1500.0	45900.0	10.141463	58.5470	40.0000	2.3233	95.0066	8.0000	.01289372	.00578045	0.
2000.0	40700.0	10.137499	44.9099	40.0000	2.3976	73.6873	8.0000	.01182742	.00623010	0.
2500.0	35700.0	10.132348	36.6018	40.0000	2.4631	60.6816	8.0000	.01081345	.00665393	0.
3000.0	31000.0	10.181175	31.2750	40.0000	2.5393	52.1301	8.0000	.00987799	.00710504	0.
3500.0	26200.0	10.131460	26.9900	40.0000	2.5799	45.5487	8.0000	.00891636	.00745519	0.
4000.0	21600.0	10.115237	23.8783	40.0000	2.6270	40.6680	8.0000	.00800706	.00782029	0.
4500.0	16100.0	10.113321	22.0463	40.0000	2.7843	40.0000	8.8162	.00686226	.00830670	0.
5000.0	15000.0	10.123301	18.9895	40.0000	2.8271	40.0000	10.3333	.00686880	.00829361	0.
5500.0	14000.0	10.173235	16.6905	40.0000	2.8846	40.0000	11.8315	.00690151	.00831454	0.
6000.0	13000.0	10.184647	14.7398	40.0000	2.9344	40.0000	13.3636	.00693422	.00829143	0.
6500.0	12000.0	10.144265	13.0209	40.0000	2.9707	40.0000	14.9310	.00696693	.00820913	0.
7000.0	11100.0	10.103697	11.5798	40.0000	3.0044	40.0000	16.4444	.00702580	.00811495	0.
7500.0	10400.0	10.131406	10.4733	40.0000	3.0521	40.0000	17.7852	.00713701	.00807548	0.
8000.0	9700.0	10.115178	9.4526	40.0000	3.0846	40.0000	19.1198	.00724822	.00798580	0.
8500.0	9100.0	10.125386	8.6021	40.0000	3.1200	40.0000	20.3410	.00738560	.00791468	0.
9000.0	8500.0	10.100791	7.8252	40.0000	3.1415	40.0000	21.5455	.00752297	.00780377	0.
9500.0	8000.0	10.119333	7.1944	40.0000	3.1707	40.0000	22.6180	.00768651	.00773051	0.
10000.0	7500.0	10.112869	6.6102	40.0000	3.1683	40.0000	23.6667	.00785006	.00762867	0.
10500.0	7100.0	10.165827	6.1598	40.0000	3.2197	40.0000	24.5711	.00803977	.00758308	0.
11000.0	6600.0	10.116605	5.6560	40.0000	3.2154	40.0000	25.5714	.00820331	.00743237	0.
11500.0	4000.0	10.182176	5.5707	40.0000	3.3266	40.0000	26.0000	.00781735	.00765774	0.
12000.0	1.0	10.389282	5.7962	40.0000	3.5402	40.0000	26.0000	.00706531	.00920801	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

' LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 1. 3. 0., DISTANCES= 8.5,16.7, DIRECTIONAL SPLIT= .50, .50,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	150000.0	10.106794	85.4262	40.0000	1.2170	160.0000	8.0000	.01865564	.00322717	******
1000.0	66000.0	10.105772	109.7354	40.0000	2.7326	160.0000	8.0000	.00842513	.00777494	0.
1500.0	47800.0	10.101580	73.2080	40.0000	2.7659	108.4006	8.0000	.00631730	.00869976	0.
2000.0	41700.0	10.096622	49.1572	40.0000	2.5700	77.6007	8.0000	.00570316	.00895760	0.
2500.0	35300.0	10.128973	35.5300	40.0000	2.4083	59.6900	8.0000	.00505199	.00927459	0.
3000.0	29500.0	10.121503	26.6642	40.0000	2.2548	47.8613	8.0000	.00435144	.00956606	0.
3500.0	20000.0	10.097368	20.9945	40.0000	2.1455	40.0000	8.0000	.00344103	.00993602	0.
4000.0	12600.0	10.106718	17.4857	40.0000	2.1862	40.0000	9.9032	.00266641	.01028172	0.
4500.0	11000.0	10.121490	14.2975	40.0000	2.1856	40.0000	12.2113	.00260778	.01032599	0.
5000.0	9700.0	10.122193	11.9495	40.0000	2.1964	40.0000	14.4419	.00258617	.01032624	0.
5500.0	8700.0	10.140192	10.1923	40.0000	2.2166	40.0000	16.4690	.00260161	.01031833	0.
6000.0	7900.0	10.144091	8.8169	40.0000	2.2391	40.0000	18.3018	.00264172	.01029473	0.
6500.0	7200.0	10.110019	7.6709	40.0000	2.2548	40.0000	20.0088	.00269419	.01022223	0.
7000.0	6700.0	10.155967	6.8380	40.0000	2.2861	40.0000	21.4186	.00277134	.01023019	0.
7500.0	6200.0	10.135373	6.0835	40.0000	2.3030	40.0000	22.7880	.00284850	.01016209	0.
8000.0	5800.0	10.157526	5.4987	40.0000	2.3273	40.0000	23.9663	.00293799	.01013735	0.
8500.0	5400.0	10.134016	4.9712	40.0000	2.3409	40.0000	25.0992	.00302749	.01006042	0.
9000.0	5000.0	10.110404	4.6056	40.0000	2.3746	40.0000	26.0000	.00287010	.01009339	0.
9500.0	1.0	10.707754	4.7797	40.0000	2.5511	40.0000	26.0000	.00263876	.01086904	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

* LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=1?.0, LANES= 2. 1. 2. 1., DISTANCES= 8.5,16.7, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	76000.0	10.101396	85.4262	40.0000	1.2170	160.0000	8.0000	.04503971	.00264884	0.
1000.0	47000.0	10.173976	109.7354	40.0000	2.7326	160.0000	8.0000	.02590519	.00660430	0.
1500.0	32400.0	10.104297	81.7370	40.0000	3.0103	115.2401	8.0000	.01995877	.00765502	0.
2000.0	29200.0	10.184629	61.0614	40.0000	3.0304	87.3418	8.0000	.01836913	.00798186	0.
2500.0	25900.0	10.130621	47.6247	40.0000	3.0012	69.8145	8.0000	.01672062	.00816017	0.
3000.0	22700.0	10.146914	39.1676	40.0000	2.9991	58.4952	8.0000	.01513099	.00841039	0.
3500.0	19500.0	10.140714	33.0360	40.0000	2.9899	50.3343	8.0000	.01354135	.00863370	0.
4000.0	16300.0	10.117240	28.3889	40.0000	2.9760	44.1718	8.0000	.01195171	.00883634	0.
4500.0	12000.0	10.159911	25.6550	40.0000	3.0354	40.0000	8.0000	.00971445	.00925240	0.
5000.0	11100.0	10.106178	21.7822	40.0000	3.0512	40.0000	9.4224	.00947894	.00913606	0.
5500.0	10400.0	10.151267	19.0148	40.0000	3.0969	40.0000	10.8365	.00936119	.00911756	0.
6000.0	9600.0	10.108398	16.5547	40.0000	3.1225	40.0000	12.3846	.00918457	.00900399	0.
6500.0	9000.0	10.182282	14.8258	40.0000	3.1813	40.0000	13.7742	.00912569	.00900571	0.
7000.0	8300.0	10.132765	13.1136	40.0000	3.2061	40.0000	15.3007	.00900794	.00887200	0.
7500.0	7700.0	10.112339	11.7276	40.0000	3.2368	40.0000	16.7368	.00894907	.00876088	0.
8000.0	7200.0	10.130026	10.6129	40.0000	3.2753	40.0000	18.0526	.00894907	.00868316	0.
8500.0	6700.0	10.104933	9.5806	40.0000	3.2980	40.0000	19.3684	.00894907	.00855426	0.
9000.0	6300.0	10.136434	8.7710	40.0000	3.3336	40.0000	20.5294	.00900794	.00848086	0.
9500.0	5900.0	10.136272	8.0180	40.0000	3.3558	40.0000	21.6753	.00906682	.00836957	0.
10000.0	5500.0	10.105599	7.3167	40.0000	3.3640	40.0000	22.8065	.00912569	.00822178	0.
10500.0	5200.0	10.159196	6.8023	40.0000	3.3948	40.0000	23.7516	.00924344	.00816261	0.
11000.0	4820.0	10.109619	6.2168	40.0000	3.3844	40.0000	24.8129	.00931409	.00797779	0.
11500.0	4510.0	10.101049	5.7638	40.0000	3.3894	40.0000	25.7320	.00942596	.00785743	0.
12000.0	1000.0	10.169593	5.7962	40.0000	3.5402	40.0000	26.0000	.00765381	.00820801	0.

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	1.0	10.685824	6.0349	40.0000	3.7627	40.0000	26.0000	.00736002	.00878773	******

1 LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 1. 2. 1., DISTANCES= 8.5,16.7, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	150000.0	9.579944	85.4262	40.0000	1.2170	160.0000	8.0000	.04180159	.00322717	******
1000.0	73000.0	10.137651	109.7354	40.0000	2.7326	160.0000	8.0000	.02055361	.00777494	0.
1500.0	32800.0	10.151957	89.5494	40.0000	3.2268	120.9642	8.0000	.00952687	.01003178	0.
2000.0	29100.0	10.146482	60.0325	40.0000	2.9919	86.5656	8.0000	.00863807	.01016287	0.
2500.0	25100.0	10.139685	42.7811	40.0000	2.7701	66.0287	8.0000	.00766594	.01030966	0.
3000.0	20800.0	10.129024	31.7033	40.0000	2.5651	52.5048	8.0000	.00661048	.01046910	0.
3500.0	16200.0	10.100951	24.1203	40.0000	2.3758	43.0018	8.0000	.00547170	.01062498	0.
4000.0	9400.0	10.149449	19.8645	40.0000	2.3514	40.0000	8.9403	.00372187	.01099919	0.
4500.0	8200.0	10.152575	16.0175	40.0000	2.3274	40.0000	11.1732	.00352744	.01099659	0.
5000.0	7200.0	10.150104	13.2862	40.0000	2.3253	40.0000	13.3934	.00338857	.01097578	0.
5500.0	6400.0	10.137346	11.2386	40.0000	2.3338	40.0000	15.4874	.00330524	.01093114	0.
6000.0	5800.0	10.158006	9.7184	40.0000	2.3556	40.0000	17.3390	.00327747	.01091497	0.
6500.0	5300.0	10.164258	8.4916	40.0000	2.3766	40.0000	19.0339	.00327747	.01087581	0.
7000.0	4900.0	10.190947	7.5281	40.0000	2.4026	40.0000	20.5294	.00330524	.01085533	0.
7500.0	4500.0	10.139979	6.6483	40.0000	2.4116	40.0000	22.0000	.00333302	.01074194	0.
8000.0	4200.0	10.159386	5.9944	40.0000	2.4348	40.0000	23.2295	.00338857	.01070699	0.
8500.0	3900.0	10.128159	5.4008	40.0000	2.4458	40.0000	24.4194	.00344412	.01061146	0.
9000.0	3630.0	10.098495	4.9037	40.0000	2.4558	40.0000	25.5036	.00350800	.01051607	0.
9500.0	1.0	10.281874	4.7797	40.0000	2.5511	40.0000	26.0000	.00263892	.01086904	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

* LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 2. 1. 2. 2., DISTANCES= 8.5,16.7, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	76000.0	10.154393	85.4262	40.0000	1.2170	160.0000	8.0000	.03012460	.00264884	0.
1000.0	64300.0	10.114295	58.3429	40.0000	1.6374	105.8485	8.0000	.02582669	.00384071	0.
1500.0	57000.0	10.119694	43.5770	40.0000	1.8372	78.8571	8.0000	.02325580	.00456116	0.
2000.0	50300.0	10.115464	35.4964	40.0000	1.9979	64.0743	8.0000	.02092040	.00519682	0.
2500.0	44000.0	10.106901	30.3072	40.0000	2.1344	54.5634	8.0000	.01874201	.00578374	0.
3000.0	38000.0	10.098211	26.6642	40.0000	2.2548	47.8613	8.0000	.01668137	.00633274	0.
3500.0	32300.0	10.108530	24.0176	40.0000	2.3683	42.9071	8.0000	.01473848	.00686818	0.
4000.0	25000.0	10.157205	23.0823	40.0000	2.5634	40.0000	8.0000	.01216759	.00763921	0.
4500.0	20500.0	10.098908	20.7229	40.0000	2.6886	40.0000	9.2034	.01069570	.00795140	0.
5000.0	19100.0	10.110467	17.9662	40.0000	2.7419	40.0000	10.7457	.01044058	.00797564	0.
5500.0	17700.0	10.095637	15.7200	40.0000	2.7925	40.0000	12.3310	.01018545	.00796904	0.
6000.0	16500.0	10.117020	13.9705	40.0000	2.8518	40.0000	13.9421	.01000882	.00798091	0.
6500.0	15400.0	10.131123	12.4993	40.0000	2.9075	40.0000	15.3099	.00987145	.00797235	0.
7000.0	14300.0	10.094375	11.1642	40.0000	2.9476	40.0000	16.7880	.00973407	.00790437	0.
7500.0	13400.0	10.103018	10.0982	40.0000	2.9949	40.0000	18.1268	.00967520	.00786559	0.
8000.0	12600.0	10.121149	9.1925	40.0000	3.0403	40.0000	19.3776	.00965557	.00782597	0.
8500.0	11800.0	10.103747	8.3552	40.0000	3.0721	40.0000	20.6111	.00963595	.00774483	0.
9000.0	11100.0	10.108703	7.6530	40.0000	3.1052	40.0000	21.7423	.00965557	.00767790	0.
9500.0	10500.0	10.145093	7.0746	40.0000	3.1428	40.0000	22.7627	.00971445	.00763577	0.
10000.0	9800.0	10.098994	6.4705	40.0000	3.1524	40.0000	23.8456	.00973407	.00750918	0.
10500.0	9300.0	10.155768	6.0464	40.0000	3.1878	40.0000	24.7228	.00983220	.00747895	0.
11000.0	8700.0	10.132505	5.5901	40.0000	3.1949	40.0000	25.6645	.00989107	.00736712	0.
11500.0	5000.0	10.137365	5.5707	40.0000	3.3266	40.0000	26.0000	.00873319	.00765774	0.
12000.0	1.0	10.231893	5.7962	40.0000	3.5402	40.0000	26.0000	.00706544	.00820601	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

T LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 1. 2. 2., DISTANCES= 8.5,13.7, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	150000.0	10.076016	85.4262	40.0000	1.2170	160.0000	8.0000	.02791402	.00322717	******
1000.0	70400.0	10.152269	107.8005	40.0000	2.6946	158.3174	8.0000	.01331355	.00767058	0.
1500.0	62400.0	10.121308	64.7171	40.0000	2.5133	100.9141	8.0000	.01197109	.00800308	0.
2000.0	54000.0	10.122298	44.1406	40.0000	2.3659	72.9515	8.0000	.01055456	.00839482	0.
2500.0	49200.0	10.104893	32.1812	40.0000	2.2341	56.4610	8.0000	.00906396	.00878755	0.
3000.0	36300.0	10.112866	24.7382	40.0000	2.1320	45.9426	8.0000	.00755484	.00921521	0.
3500.0	22000.0	10.114324	20.9945	40.0000	2.1455	40.0000	8.0000	.00504582	.00993602	0.
4000.0	16500.0	10.124026	17.1532	40.0000	2.1625	40.0000	10.0612	.00416627	.01017635	0.
4500.0	14400.0	10.128499	14.0408	40.0000	2.1639	40.0000	12.3846	.00391630	.01022132	0.
5000.0	12700.0	10.112189	11.7389	40.0000	2.1756	40.0000	14.6211	.00374039	.01021997	0.
5500.0	11400.0	10.110355	10.0182	40.0000	2.1967	40.0000	16.6429	.00363854	.01021310	0.
6000.0	10400.0	10.130518	8.7042	40.0000	2.2242	40.0000	18.4286	.00359225	.01021497	0.
6500.0	9500.0	10.102102	7.5888	40.0000	2.2423	40.0000	20.1111	.00356448	.01015507	0.
7000.0	8800.0	10.114789	6.7320	40.0000	2.2677	40.0000	21.5614	.00357374	.01013158	0.
7500.0	8200.0	10.132483	6.0323	40.0000	2.2929	40.0000	22.8621	.00360151	.01010632	0.
8000.0	7600.0	10.094967	5.4000	40.0000	2.3054	40.0000	24.1186	.00362929	.01002119	0.
8500.0	7200.0	10.176301	4.9712	40.0000	2.3409	40.0000	25.0992	.00369409	.01006042	0.
9000.0	6000.0	10.117463	4.6056	40.0000	2.3746	40.0000	26.0000	.00324043	.01009339	0.
9500.0	1.0	10.662134	4.7797	40.0000	2.5511	40.0000	26.0000	.00263882	.01086904	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

4 LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 2. 2. 1. 0., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT= .50, .50,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUFUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	78000.0	10.148992	77.9830	40.0000	.5851	160.0000	8.0000	.03081148	.00226474	0.
1000.0	53000.0	10.152907	55.4262	40.0000	1.2170	160.0000	8.0000	.02119516	.00492900	0.
1500.0	34600.0	10.132896	78.3656	40.0000	1.6266	139.1012	8.0000	.01416935	.00682705	0.
2000.0	32200.0	10.179259	58.7993	40.0000	1.6480	106.4267	8.0000	.01342360	.00700429	0.
2500.0	29800.0	10.163574	46.5849	40.0000	1.6550	86.1827	8.0000	.01267784	.00711333	0.
3000.0	27400.0	10.113818	38.2391	40.0000	1.6543	72.4093	8.0000	.01193209	.00718495	0.
3500.0	25100.0	10.109366	32.5051	40.0000	1.6622	62.8344	8.0000	.01122558	.00729513	0.
4000.0	22900.0	10.140453	28.3511	40.0000	1.6762	55.8140	8.0000	.01055833	.00743315	0.
4500.0	20700.0	10.143794	25.0122	40.0000	1.6841	50.2046	8.0000	.00989107	.00754069	0.
5000.0	18500.0	10.125986	22.2712	40.0000	1.6874	45.6198	8.0000	.00922382	.00762498	0.
5500.0	16400.0	10.143750	20.1333	40.0000	1.6967	41.9825	8.0000	.00859581	.00773715	0.
6000.0	11000.0	10.098437	19.2597	40.0000	1.7681	40.0000	8.0000	.00667255	.00814998	0.
6500.0	7800.0	10.128256	18.1284	40.0000	1.8370	40.0000	8.7647	.00561279	.00839872	0.
7000.0	7300.0	10.100282	16.2807	40.0000	1.8494	40.0000	9.9630	.00561279	.00828125	0.
7500.0	6900.0	10.141754	14.8554	40.0000	1.8740	40.0000	11.0845	.00565204	.00822889	0.
8000.0	6500.0	10.151315	13.5578	40.0000	1.8942	40.0000	12.2381	.00569129	.00814146	0.
8500.0	6100.0	10.123474	12.3540	40.0000	1.9086	40.0000	13.4251	.00573054	.00801294	0.
9000.0	5800.0	10.161440	11.4086	40.0000	1.9328	40.0000	14.4757	.00580904	.00794551	0.
9500.0	5500.0	10.167236	10.5161	40.0000	1.9511	40.0000	15.5366	.00588754	.00784273	0.
10000.0	5200.0	10.140954	9.6693	40.0000	1.9629	40.0000	16.6078	.00596604	.00770471	0.
10500.0	4910.0	10.095339	8.8814	40.0000	1.9700	40.0000	17.6693	.00604847	.00754432	0.
11000.0	4700.0	10.122241	8.2715	40.0000	1.9876	40.0000	18.5686	.00616230	.00745465	0.
11500.0	4500.0	10.142255	7.7100	40.0000	2.0026	40.0000	19.4390	.00628005	.00735628	0.
12000.0	4300.0	10.144228	7.1771	40.0000	2.0129	40.0000	20.3010	.00639780	.00723809	0.

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	4100.0	10.129264	6.6715	40.0000	2.0182	40.0000	21.1546	.00651555	.00710130	0.
13000.0	3900.0	10.098470	6.1917	40.0000	2.0187	40.0000	22.0000	.00663330	.00694710	0.
13500.0	3730.0	10.098111	5.7850	40.0000	2.0230	40.0000	22.7634	.00676282	.00682299	0.
14000.0	3600.0	10.148248	5.4632	40.0000	2.0354	40.0000	23.4151	.00690805	.00674988	0.
14500.0	3410.0	10.096277	5.0667	40.0000	2.0257	40.0000	24.2045	.00702973	.00657129	0.
15000.0	3300.0	10.162488	4.8122	40.0000	2.0381	40.0000	24.7778	.00718280	.00651360	0.
15500.0	3120.0	10.108739	4.4692	40.0000	2.0238	40.0000	25.5189	.00730840	.00633194	0.
16000.0	2000.0	10.099185	4.2810	40.0000	2.0398	40.0000	26.0000	.00706505	.00630423	0.
16500.0	1.0	10.285508	4.3594	40.0000	2.1213	40.0000	26.0000	.00647669	.00659030	******

4 LANE - 2 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 2. 2. 0., DISTANCES= 8.5.18.5. DIRECTIONAL SPLIT= .50. .50.1.00. .00.

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	150000.0	9.603707	77.9830	40.0000	.5851	160.0000	8.0000	.02786773	.00255218	******
1000.0	104000.0	10.140284	85.4262	40.0000	1.2170	160.0000	8.0000	.01944260	.00550733	0.
1500.0	86000.0	10.171888	95.4371	40.0000	1.9185	160.0000	8.0000	.00694379	.00907115	0.
2000.0	77100.0	10.186710	68.3026	40.0000	1.8650	118.0328	8.0000	.00649938	.00917346	0.
2500.0	70500.0	10.194257	51.2250	40.0000	1.7881	91.8724	8.0000	.00611053	.00915301	0.
3000.0	65000.0	10.184544	40.9976	40.0000	1.7495	75.7895	8.0000	.00574020	.00930610	0.
3500.0	61300.0	10.149174	33.1740	40.0000	1.6892	63.6556	8.0000	.00533283	.00934268	0.
4000.0	58500.0	10.096805	27.3336	40.0000	1.6290	54.5634	8.0000	.00490694	.00936587	0.
4500.0	56800.0	10.126648	23.1997	40.0000	1.5891	47.9791	8.0000	.00449957	.00947410	0.
5000.0	57000.0	10.118831	19.8350	40.0000	1.5449	42.6255	8.0000	.00407369	.00954624	0.
5500.0	7200.0	10.139703	18.3674	40.0000	1.5850	40.0000	8.0553	.00235163	.01002013	0.
6000.0	6600.0	10.158788	16.0935	40.0000	1.5876	40.0000	9.5000	.00233311	.01000504	0.
6500.0	6000.0	10.113611	14.1259	40.0000	1.5873	40.0000	11.0541	.00231460	.00992022	0.
7000.0	5600.0	10.183986	12.7432	40.0000	1.6079	40.0000	12.3846	.00233311	.00995135	0.
7500.0	5200.0	10.183848	11.4582	40.0000	1.6211	40.0000	13.7598	.00235163	.00990499	0.
8000.0	4800.0	10.108541	10.2479	40.0000	1.6255	40.0000	15.1618	.00237015	.00977604	0.
8500.0	4510.0	10.101129	9.3137	40.0000	1.6397	40.0000	16.4064	.00240903	.00971588	0.
9000.0	4300.0	10.151168	8.5842	40.0000	1.6620	40.0000	17.4545	.00246273	.00971538	0.
9500.0	4100.0	10.179030	7.9166	40.0000	1.6807	40.0000	18.4689	.00251828	.00968645	0.
10000.0	3900.0	10.170892	7.2880	40.0000	1.6941	40.0000	19.4719	.00257383	.00962273	0.
10500.0	3700.0	10.128964	6.6961	40.0000	1.7020	40.0000	20.4637	.00262938	.00951987	0.
11000.0	3570.0	10.106029	6.1926	40.0000	1.7120	40.0000	21.3632	.00269049	.00943850	0.
11500.0	3400.0	10.135696	5.7901	40.0000	1.7282	40.0000	22.1366	.00275900	.00940842	0.
12000.0	3250.0	10.106959	5.3789	40.0000	1.7353	40.0000	22.9459	.00282381	.00931742	0.

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	7120.0	10.098525	5.0269	40.0000	1.7446	40.0000	23.6809	.00289232	.00924767	0.
13000.0	3000.0	10.095108	4.7136	40.0000	1.7537	40.0000	24.3684	.00296268	.00918291	0.
13500.0	2900.0	10.121074	4.4524	40.0000	1.7666	40.0000	24.9793	.00303675	.00914937	0.
14000.0	2800.0	10.137049	4.2084	40.0000	1.7771	40.0000	25.5714	.00311082	.00910486	0.
14500.0	1000.0	10.172263	4.0560	40.0000	1.8033	40.0000	26.0000	.00287010	.00917140	0.
15000.0	1.0	10.567463	4.1294	40.0000	1.8808	40.0000	26.0000	.00277770	.00959114	******

4 LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0. LANES= 2. 2. 1. 1., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT= .50. .50. .50. .50.

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	79000.0	10.162280	77.9830	40.0000	.5851	160.0000	8.0000	.06221171	.00226474	0.
1000.0	55000.0	10.163826	85.4262	40.0000	1.2170	160.0000	8.0000	.04356782	.00492900	0.
1500.0	34800.0	10.110849	81.5808	40.0000	1.6826	143.1907	8.0000	.02790695	.00708547	0.
2000.0	32400.0	10.102337	60.6921	40.0000	1.6918	108.8042	8.0000	.02621919	.00720767	0.
2500.0	30100.0	10.137489	48.4770	40.0000	1.7096	88.5325	8.0000	.02460993	.00736828	0.
3000.0	27600.0	10.127721	40.0403	40.0000	1.7166	74.6282	8.0000	.02300067	.00747732	0.
3500.0	25600.0	10.159023	34.2227	40.0000	1.7314	64.9284	8.0000	.02146991	.00762180	0.
4000.0	23300.0	10.095895	29.4335	40.0000	1.7261	57.1231	8.0000	.01986065	.00766956	0.
4500.0	21200.0	10.137871	26.1212	40.0000	1.7415	51.5326	8.0000	.01840838	.00781458	0.
5000.0	19000.0	10.099219	23.1906	40.0000	1.7402	46.7137	8.0000	.01687762	.00787874	0.
5500.0	17000.0	10.153416	21.0795	40.0000	1.7565	43.0969	8.0000	.01550386	.00802608	0.
6000.0	15000.0	10.187202	19.2597	40.0000	1.7681	40.0000	8.0000	.01413010	.00814998	0.
6500.0	8200.0	10.164315	19.1218	40.0000	1.8960	40.0000	8.3537	.00898832	.00877114	0.
7000.0	7700.0	10.135310	17.1694	40.0000	1.9074	40.0000	9.5000	.00879206	.00864721	0.
7500.0	7300.0	10.184153	15.6842	40.0000	1.9328	40.0000	10.5747	.00867431	.00860096	0.
8000.0	6800.0	10.113833	14.1485	40.0000	1.9398	40.0000	11.8148	.00847806	.00842958	0.
8500.0	6400.0	10.102434	12.9254	40.0000	1.9564	40.0000	12.9624	.00836031	.00831415	0.
9000.0	6100.0	10.156060	11.9673	40.0000	1.9833	40.0000	13.9811	.00832106	.00826168	0.
9500.0	5800.0	10.180014	11.0649	40.0000	2.0047	40.0000	15.0095	.00828181	.00817513	0.
10000.0	5500.0	10.174082	10.2100	40.0000	2.0201	40.0000	16.0476	.00824256	.00805426	0.
10500.0	5200.0	10.138483	9.3972	40.0000	2.0290	40.0000	17.0957	.00820331	.00789932	0.
11000.0	4920.0	10.098013	8.6574	40.0000	2.0353	40.0000	18.1132	.00817976	.00773646	0.
11500.0	4700.0	10.106976	8.0557	40.0000	2.0486	40.0000	19.0096	.00820331	.00762332	0.
12000.0	4500.0	10.122744	7.5176	40.0000	2.0616	40.0000	19.8571	.00824256	.00751565	0.

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	4300.0	10.122070	7.0063	40.0000	2.0699	40.0000	20.6967	.00228181	.00738911	0.
13000.0	4100.0	10.105959	6.5206	40.0000	2.0733	40.0000	21.5283	.00832106	.00724484	0.
13500.0	3920.0	10.104094	6.0916	40.0000	2.0776	40.0000	22.3046	.00837601	.00711458	0.
14000.0	3800.0	10.178611	5.7796	40.0000	2.0956	40.0000	22.9259	.00847806	.00706501	0.
14500.0	3600.0	10.126029	5.3608	40.0000	2.0860	40.0000	23.7281	.00851731	.00687885	0.
15000.0	3430.0	10.108075	5.0091	40.0000	2.0813	40.0000	24.4474	.00858011	.00672895	0.
15500.0	3300.0	10.144390	4.7354	40.0000	2.0864	40.0000	25.0543	.00867431	.00663668	0.
16000.0	3120.0	10.095008	4.4044	40.0000	2.0708	40.0000	25.7770	.00872926	.00645186	0.
16500.0	1000.0	10.129205	4.3594	40.0000	2.1213	40.0000	26.0000	.00726130	.00659030	0.
17000.0	1.0	10.412738	4.4396	40.0000	2.2043	40.0000	26.0000	.00667333	.00688370	******

4 LANE - 2 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 2. 1. 1., DISTANCES= 8.5,16.5, DIRECTIONAL SPLIT= .50. .50. .50. .50.

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	153000.0	9.503706	77.9830	40.0000	.5851	160.0000	8.0000	.05564287	.00255218	******
1000.0	104000.0	10.117019	85.4262	40.0000	1.2170	160.0000	8.0000	.04018138	.00550733	0.
1500.0	82000.0	10.105246	95.4371	40.0000	1.9185	160.0000	8.0000	.01583183	.00907115	0.
2000.0	37320.0	10.098705	71.0738	40.0000	1.9269	121.2654	8.0000	.01270991	.00947299	0.
2500.0	33900.0	10.125971	54.2695	40.0000	1.8739	95.4742	8.0000	.01190628	.00956766	0.
3000.0	29400.0	10.132555	43.0384	40.0000	1.8190	78.2239	8.0000	.01107302	.00964300	0.
3500.0	25800.0	10.109639	34.9539	40.0000	1.7606	65.8057	8.0000	.01020274	.00969000	0.
4000.0	23200.0	10.123214	29.1565	40.0000	1.7133	56.7901	8.0000	.00933245	.00977890	0.
4500.0	20500.0	10.103413	24.5900	40.0000	1.6621	49.6924	8.0000	.00842513	.00983500	0.
5000.0	17800.0	10.102347	21.0787	40.0000	1.6180	44.1718	8.0000	.00751781	.00991261	0.
5500.0	14000.0	10.114235	18.4960	40.0000	1.5917	40.0000	8.0000	.00620312	.01006590	0.
6000.0	7000.0	10.111155	17.0123	40.0000	1.6411	40.0000	9.0000	.00370335	.01037685	0.
6500.0	6500.0	10.178496	15.1872	40.0000	1.6554	40.0000	10.3333	.00361077	.01041342	0.
7000.0	6000.0	10.184124	13.5569	40.0000	1.6651	40.0000	11.7368	.00351819	.01037713	0.
7500.0	5500.0	10.113929	12.0542	40.0000	1.6670	40.0000	13.2162	.00342560	.01025378	0.
8000.0	5200.0	10.165845	11.0312	40.0000	1.6914	40.0000	14.3913	.00340708	.01028255	0.
8500.0	4810.0	10.094801	9.8950	40.0000	1.6933	40.0000	15.7638	.00335524	.01012917	0.
9000.0	4600.0	10.171214	9.1577	40.0000	1.7194	40.0000	16.7802	.00337005	.01015813	0.
9500.0	4310.0	10.098770	8.3129	40.0000	1.7240	40.0000	17.9713	.00335524	.01002059	0.
10000.0	4100.0	10.096443	7.6598	40.0000	1.7382	40.0000	18.9780	.00337005	.00995914	0.
10500.0	3920.0	10.107560	7.0982	40.0000	1.7538	40.0000	19.9008	.00339597	.00991145	0.
11000.0	3800.0	10.190504	6.6767	40.0000	1.7794	40.0000	20.6559	.00344412	.00994295	0.
11500.0	3600.0	10.117940	6.1414	40.0000	1.7812	40.0000	21.5989	.00346263	.00980029	0.
12000.0	3450.0	10.107856	5.7225	40.0000	1.7914	40.0000	22.3968	.00349967	.00972662	0.

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	3310.0	10.097396	5.3457	40.0000	1.8007	40.0000	23.1506	.00354041	.00965195	0.
13000.0	3200.0	10.128747	5.0412	40.0000	1.8156	40.0000	23.8041	.00359225	.00962365	0.
13500.0	3100.0	10.168391	4.7719	40.0000	1.8312	40.0000	24.4112	.00364780	.00960431	0.
14000.0	2950.0	10.094355	4.4418	40.0000	1.8279	40.0000	25.1407	.00368484	.00945720	0.
14500.0	2850.0	10.111946	4.2077	40.0000	1.8383	40.0000	25.7129	.00374039	.00941253	0.
15000.0	10.0	10.192089	4.1294	40.0000	1.8808	40.0000	26.0000	.00278122	.00959114	0.

4 LANE - 2 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 2. 2. 3. 0., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT= .50, .50,1.00, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	51100.0	10.099996	77.9830	40.0000	.5851	160.0000	8.0000	.03362441	.00226474	0.
1000.0	35500.0	10.141823	50.9086	40.0000	1.1606	153.3333	8.0000	.02361559	.00468700	0.
1500.0	32600.0	10.131304	55.7510	40.0000	1.2181	108.1999	8.0000	.02191474	.00500658	0.
2000.0	30000.0	10.185683	43.4018	40.0000	1.2798	85.8031	8.0000	.02041015	.00534616	0.
2500.0	27400.0	10.129791	35.1634	40.0000	1.3148	71.0882	8.0000	.01890556	.00556957	0.
3000.0	25000.0	10.126391	29.8383	40.0000	1.3549	61.4471	8.0000	.01753179	.00581604	0.
3500.0	22700.0	10.121997	25.9638	40.0000	1.3910	54.4110	8.0000	.01622345	.00604534	0.
4000.0	20500.0	10.125667	23.0386	40.0000	1.4254	49.0667	8.0000	.01498053	.00626701	0.
4500.0	18400.0	10.143205	20.7700	40.0000	1.4593	44.8841	8.0000	.01380302	.00648717	0.
5000.0	16300.0	10.126992	18.8380	40.0000	1.4855	41.3586	8.0000	.01262551	.00667178	0.
5500.0	12000.0	10.133623	18.4960	40.0000	1.5917	40.0000	8.0000	.01000882	.00723514	0.
6000.0	7500.0	10.100664	18.2156	40.0000	1.7098	40.0000	8.4286	.00726130	.00778904	0.
6500.0	7100.0	10.161355	16.5018	40.0000	1.7379	40.0000	9.5604	.00719589	.00778058	0.
7000.0	6600.0	10.099449	14.7916	40.0000	1.7499	40.0000	10.8614	.00706505	.00765909	0.
7500.0	6200.0	10.098338	13.4437	40.0000	1.7714	40.0000	12.0754	.00699963	.00758552	0.
8000.0	5900.0	10.162349	12.3898	40.0000	1.8021	40.0000	13.1616	.00699963	.00756444	0.
8500.0	5600.0	10.191481	11.4046	40.0000	1.8274	40.0000	14.2589	.00699963	.00750661	0.
9000.0	5300.0	10.185245	10.4764	40.0000	1.8465	40.0000	15.3673	.00699963	.00741153	0.
9500.0	5000.0	10.143791	9.5974	40.0000	1.8589	40.0000	16.4872	.00699963	.00727934	0.
10000.0	4720.0	10.093661	8.7989	40.0000	1.8682	40.0000	17.5761	.00701272	.00713478	0.
10500.0	4500.0	10.093510	8.1478	40.0000	1.8835	40.0000	18.5385	.00706505	.00703321	0.
11000.0	4300.0	10.098431	7.5661	40.0000	1.8979	40.0000	19.4490	.00713047	.00693376	0.
11500.0	4110.0	10.098330	7.0329	40.0000	1.9098	40.0000	20.3266	.00720243	.00682740	0.
12000.0	3930.0	10.095976	6.5454	40.0000	1.9195	40.0000	21.1692	.00728093	.00671705	0.

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	3800.0	10.155908	6.1685	40.0000	1.9384	40.0000	21.8756	.00739214	.00666426	0.
13000.0	3600.0	10.094877	5.6982	40.0000	1.9341	40.0000	22.7426	.00745755	.00649533	0.
13500.0	3500.0	10.182476	5.4143	40.0000	1.9549	40.0000	23.3415	.00758839	.00646685	0.
14000.0	3300.0	10.097441	4.9902	40.0000	1.9420	40.0000	24.1845	.00765381	.00627263	0.
14500.0	3200.0	10.170693	4.7430	40.0000	1.9572	40.0000	24.7512	.00778464	.00622904	0.
15000.0	3020.0	10.100260	4.3908	40.0000	1.9425	40.0000	25.5171	.00786314	.00604697	0.
15500.0	2300.0	10.099407	4.2043	40.0000	1.9596	40.0000	26.0000	.00758839	.00602527	0.
16000.0	100.0	10.157454	4.2810	40.0000	2.0398	40.0000	26.0000	.00634546	.00630423	0.

4 LANE - 2 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 2. 3. 0., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT= .50, .50,1.00, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	104000.0	10.136896	77.9830	40.0000	.5851	160.0000	8.0000	.03280553	.00255218	0.
1000.0	66000.0	10.115417	55.4262	40.0000	1.2170	160.0000	8.0000	.02055361	.00550733	0.
1500.0	34700.0	10.112562	79.9428	40.0000	1.6541	141.1163	8.0000	.01098661	.00782039	0.
2000.0	32000.0	10.101741	57.0119	40.0000	1.6064	104.1509	8.0000	.01024594	.00794977	0.
2500.0	29300.0	10.134455	43.7096	40.0000	1.5711	82.5318	8.0000	.00950527	.00812501	0.
3000.0	26500.0	10.115437	34.6631	40.0000	1.5286	67.8688	8.0000	.00873374	.00825389	0.
3500.0	23700.0	10.116553	28.3973	40.0000	1.4933	57.6301	8.0000	.00796221	.00840293	0.
4000.0	21000.0	10.173814	24.0044	40.0000	1.4718	50.3343	8.0000	.00722154	.00860403	0.
4500.0	18100.0	10.128717	20.3015	40.0000	1.4340	44.2722	8.0000	.00641914	.00871252	0.
5000.0	14000.0	10.106112	17.7901	40.0000	1.4224	40.0000	8.0000	.00524642	.00893597	0.
5500.0	6600.0	10.151885	16.8861	40.0000	1.5056	40.0000	8.7647	.00305527	.00948245	0.
6000.0	6000.0	10.136149	14.7648	40.0000	1.5086	40.0000	10.3333	.00296268	.00944693	0.
6500.0	5500.0	10.133847	13.0798	40.0000	1.5188	40.0000	11.8571	.00290096	.00941796	0.
7000.0	5100.0	10.152149	11.7258	40.0000	1.5350	40.0000	13.2791	.00287010	.00940309	0.
7500.0	4710.0	10.101843	10.4763	40.0000	1.5439	40.0000	14.7305	.00284232	.00931517	0.
8000.0	4420.0	10.104717	9.4943	40.0000	1.5604	40.0000	16.0024	.00284541	.00927568	0.
8500.0	4200.0	10.149002	8.7061	40.0000	1.5824	40.0000	17.1183	.00287010	.00927449	0.
9000.0	4000.0	10.179904	8.0042	40.0000	1.6024	40.0000	18.1765	.00290096	.00925768	0.
9500.0	3800.0	10.172152	7.3451	40.0000	1.6168	40.0000	19.2222	.00293182	.00920015	0.
10000.0	3600.0	10.127488	6.7258	40.0000	1.6255	40.0000	20.2558	.00296268	.00910373	0.
10500.0	3430.0	10.102791	6.1994	40.0000	1.6359	40.0000	21.1935	.00300280	.00902607	0.
11000.0	3300.0	10.127136	5.7784	40.0000	1.6523	40.0000	22.0000	.00305527	.00899703	0.
11500.0	3200.0	10.191854	5.4381	40.0000	1.6735	40.0000	22.6983	.00311699	.00900823	0.
12000.0	3070.0	10.097868	5.0008	40.0000	1.6716	40.0000	23.5781	.00315711	.00885758	0.

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	2920.0	10.109756	4.6917	40.0000	1.6837	40.0000	24.2628	.00321574	.00881389	0.
13000.0	2810.0	10.108583	4.4035	40.0000	1.6931	40.0000	24.9270	.00327438	.00875644	0.
13500.0	2700.0	10.095220	4.1346	40.0000	1.6999	40.0000	25.5714	.00333302	.00868616	0.
14000.0	1000.0	10.104183	3.9843	40.0000	1.7270	40.0000	26.0000	.00290096	.00876032	0.
14500.0	1.0	10.483564	4.0560	40.0000	1.8033	40.0000	26.0000	.00268524	.00917140	******

6 LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 2. 2. 2. 1., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	7?000.0	10.148992	??.9830	40.0000	.5851	160.0000	8.0000	.04611909	.00226474	0.
1000.0	53000.0	10.152907	85.4262	40.0000	1.2170	160.0000	8.0000	.03159648	.00492900	0.
1500.0	34600.0	10.132896	78.3656	40.0000	1.6266	139.1012	8.0000	.02095965	.00682705	0.
2000.0	32200.0	10.179259	58.7993	40.0000	1.6480	106.4267	8.0000	.01974289	.00700429	0.
2500.0	29800.0	10.163574	46.5849	40.0000	1.6550	86.1827	8.0000	.01852614	.00711333	0.
3000.0	27400.0	10.113818	38.2391	40.0000	1.6543	72.4093	8.0000	.01730938	.00718495	0.
3500.0	25100.0	10.109366	32.5051	40.0000	1.6622	62.8344	8.0000	.01615149	.00729513	0.
4000.0	22900.0	10.140453	28.3511	40.0000	1.6762	55.8140	8.0000	.01505249	.00743315	0.
4500.0	20700.0	10.143794	25.0122	40.0000	1.6841	50.2046	8.0000	.01395348	.00754069	0.
5000.0	18500.0	10.125986	22.2712	40.0000	1.6874	45.6198	8.0000	.01285447	.00762498	0.
5500.0	16400.0	10.143750	20.1333	40.0000	1.6967	41.9825	8.0000	.01181434	.00773715	0.
6000.0	11000.0	10.098437	19.2597	40.0000	1.7681	40.0000	8.0000	.00883131	.00814998	0.
6500.0	7800.0	10.128256	18.1284	40.0000	1.8370	40.0000	8.7647	.00714355	.00839872	0.
7000.0	7300.0	10.100282	16.2807	40.0000	1.8494	40.0000	9.9630	.00704543	.00828125	0.
7500.0	6900.0	10.141754	14.8554	40.0000	1.8740	40.0000	11.0845	.00700618	.00822889	0.
8000.0	6500.0	10.151315	13.5578	40.0000	1.8942	40.0000	12.2381	.00696693	.00814146	0.
8500.0	6100.0	10.123474	12.3540	40.0000	1.9086	40.0000	13.4251	.00692768	.00801294	0.
9000.0	5800.0	10.161440	11.4086	40.0000	1.9328	40.0000	14.4757	.00694730	.00794551	0.
9500.0	5500.0	10.167236	10.5161	40.0000	1.9511	40.0000	15.5366	.00696693	.00784273	0.
10000.0	5200.0	10.140954	9.6693	40.0000	1.9629	40.0000	16.6078	.00698655	.00770471	0.
10500.0	4910.0	10.095339	8.8814	40.0000	1.9700	40.0000	17.6693	.00701206	.00754432	0.
11000.0	4700.0	10.122241	8.2715	40.0000	1.9876	40.0000	18.5686	.00708468	.00745465	0.
11500.0	4500.0	10.142255	7.7100	40.0000	2.0026	40.0000	19.4390	.00716318	.00735628	0.
12000.0	4300.0	10.144228	7.1771	40.0000	2.0129	40.0000	20.3010	.00724168	.00723809	0.

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	4100.0	10.129264	6.6715	40.0000	2.0182	40.0000	21.1546	.00732018	.00710130	0.
13000.0	3900.0	10.098470	6.1917	40.0000	2.0187	40.0000	22.0000	.00739868	.00694710	0.
13500.0	3730.0	10.098111	5.7850	40.0000	2.0230	40.0000	22.7634	.00749484	.00682299	0.
14000.0	3600.0	10.148248	5.4632	40.0000	2.0354	40.0000	23.4151	.00761456	.00674988	0.
14500.0	3410.0	10.096277	5.0667	40.0000	2.0257	40.0000	24.2045	.00769894	.00657129	0.
15000.0	3300.0	10.162488	4.8122	40.0000	2.0381	40.0000	24.7778	.00783043	.00651360	0.
15500.0	3120.0	10.108739	4.4692	40.0000	2.0238	40.0000	25.5189	.00792071	.00633194	0.
16000.0	2000.0	10.099185	4.2810	40.0000	2.0398	40.0000	26.0000	.00745755	.00630423	0.
16500.0	1.0	10.285508	4.3594	40.0000	2.1213	40.0000	26.0000	.00647689	.00659030	******

6 LANE - 2 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 2. 2. 1., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	150000.0	9.603707	77.9830	40.0000	.5851	160.0000	8.0000	.04175530	.00255218	******
1000.0	104000.0	10.140284	85.4262	40.0000	1.2170	160.0000	8.0000	.02907132	.00550733	0.
1500.0	36000.0	10.171888	95.4371	40.0000	1.9185	160.0000	8.0000	.01027680	.00907115	0.
2000.0	33100.0	10.186710	68.3026	40.0000	1.8650	118.0328	8.0000	.00956391	.00917346	0.
2500.0	30500.0	10.104257	51.2250	40.0000	1.7881	91.8724	8.0000	.00893434	.00915301	0.
3000.0	29000.0	10.184544	40.9976	40.0000	1.7495	75.7895	8.0000	.00833254	.00930610	0.
3500.0	25300.0	10.149174	33.1740	40.0000	1.6892	63.6556	8.0000	.00767520	.00934268	0.
4000.0	22500.0	10.096805	27.3336	40.0000	1.6290	54.5634	8.0000	.00699008	.00936587	0.
4500.0	19800.0	10.126648	23.1997	40.0000	1.5891	47.9791	8.0000	.00633273	.00947410	0.
5000.0	17000.0	10.118831	19.8350	40.0000	1.5449	42.6255	8.0000	.00564761	.00954624	0.
5500.0	7200.0	10.139703	18.3674	40.0000	1.5850	40.0000	8.0553	.00301823	.01002013	0.
6000.0	6600.0	10.158388	16.0935	40.0000	1.5876	40.0000	9.5000	.00294417	.01000504	0.
6500.0	6000.0	10.113611	14.1259	40.0000	1.5873	40.0000	11.0541	.00287010	.00992022	0.
7000.0	5600.0	10.183986	12.7432	40.0000	1.6079	40.0000	12.3846	.00285158	.00995135	0.
7500.0	5200.0	10.183848	11.4582	40.0000	1.6211	40.0000	13.7598	.00283306	.00990499	0.
8000.0	4800.0	10.102541	10.2479	40.0000	1.6255	40.0000	15.1818	.00281455	.00977604	0.
8500.0	4510.0	10.101129	9.3137	40.0000	1.6397	40.0000	16.4064	.00282658	.00971588	0.
9000.0	4300.0	10.151968	8.5842	40.0000	1.6620	40.0000	17.4545	.00286084	.00971538	0.
9500.0	4100.0	10.179030	7.9166	40.0000	1.6807	40.0000	18.4689	.00289787	.00968845	0.
10000.0	3900.0	10.170892	7.2880	40.0000	1.6941	40.0000	19.4719	.00293491	.00962273	0.
10500.0	3700.0	10.128964	6.6961	40.0000	1.7020	40.0000	20.4637	.00297194	.00951987	0.
11000.0	3530.0	10.108029	6.1926	40.0000	1.7120	40.0000	21.3632	.00301731	.00943850	0.
11500.0	3400.0	10.135696	5.7901	40.0000	1.7282	40.0000	22.1366	.00307378	.00940842	0.
12000.0	3250.0	10.106459	5.3789	40.0000	1.7353	40.0000	22.9459	.00312470	.00931742	0.

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	3120.0	10.098525	5.0269	40.0000	1.7446	40.0000	23.6809	.00318118	.00924767	0.
13000.0	3000.0	10.095108	4.7136	40.0000	1.7537	40.0000	24.3684	.00324043	.00918291	0.
13500.0	2900.0	10.121074	4.4524	40.0000	1.7666	40.0000	24.9793	.00330524	.00914937	0.
14000.0	2800.0	10.137049	4.2084	40.0000	1.7771	40.0000	25.5714	.00337005	.00910486	0.
14500.0	1000.0	10.172263	4.0560	40.0000	1.8033	40.0000	26.0000	.00296268	.00917140	0.
15000.0	1.0	10.567463	4.1294	40.0000	1.8808	40.0000	26.0000	.00277779	.00959114	******

4 LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 2. 2. 2. 2., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	77100.0	10.102481	77.9830	40.0000	.5851	160.0000	8.0000	.03045822	.00226474	0.
1000.0	66500.0	10.118768	55.1611	40.0000	.8292	113.2308	8.0000	.02649394	.00330534	0.
1500.0	60500.0	10.105226	40.9397	40.0000	.9358	85.8031	8.0000	.02433518	.00380926	0.
2000.0	55200.0	10.098443	33.2206	40.0000	1.0240	70.8298	8.0000	.02245116	.00424366	0.
2500.0	50400.0	10.106326	28.3243	40.0000	1.1017	61.2539	8.0000	.02076340	.00463898	0.
3000.0	44000.0	10.134596	24.9422	40.0000	1.1733	54.5634	8.0000	.01923264	.00501234	0.
3500.0	41600.0	10.098135	22.1777	40.0000	1.2283	49.1906	8.0000	.01770188	.00531610	0.
4000.0	37600.0	10.114992	20.1761	40.0000	1.2856	45.1965	8.0000	.01632812	.00563331	0.
4500.0	33700.0	10.115909	18.5156	40.0000	1.3362	41.8922	8.0000	.01499361	.00592241	0.
5000.0	29000.0	10.190695	17.7901	40.0000	1.4224	40.0000	8.0000	.01334510	.00637870	0.
5500.0	19000.0	10.096915	18.4960	40.0000	1.5917	40.0000	8.0000	.00961632	.00723514	0.
6000.0	14600.0	10.134409	17.7258	40.0000	1.6820	40.0000	8.6505	.00808556	.00761642	0.
6500.0	13700.0	10.124793	15.9470	40.0000	1.7033	40.0000	9.8713	.00792856	.00756710	0.
7000.0	13000.0	10.187238	14.5839	40.0000	1.7358	40.0000	11.0000	.00785006	.00757132	0.
7500.0	12100.0	10.110440	13.1451	40.0000	1.7492	40.0000	12.3061	.00769306	.00744777	0.
8000.0	11400.0	10.097248	12.0022	40.0000	1.7709	40.0000	13.4948	.00761456	.00737067	0.
8500.0	10800.0	10.101806	11.0243	40.0000	1.7942	40.0000	14.6166	.00757531	.00730168	0.
9000.0	10300.0	10.131780	10.1956	40.0000	1.8199	40.0000	15.6528	.00757531	.00724905	0.
9500.0	9800.0	10.132472	9.4127	40.0000	1.8399	40.0000	16.6891	.00757531	.00716494	0.
10000.0	9300.0	10.104870	8.6712	40.0000	1.8540	40.0000	17.7254	.00757531	.00705040	0.
10500.0	9000.0	10.188206	8.1478	40.0000	1.8835	40.0000	18.5385	.00765381	.00703321	0.
11000.0	8500.0	10.113294	7.4776	40.0000	1.8864	40.0000	19.5641	.00765381	.00686781	0.
11500.0	8200.0	10.162285	7.0155	40.0000	1.9074	40.0000	20.3503	.00773231	.00681369	0.
12000.0	7800.0	10.121825	6.4941	40.0000	1.9118	40.0000	21.2424	.00777156	.00667436	0.

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	7500.0	10.143427	6.0846	40.0000	1.9247	40.0000	22.0000	.00785006	.00659079	0.
13000.0	7200.0	10.153976	5.6982	40.0000	1.9341	40.0000	22.7426	.00792856	.00649533	0.
13500.0	6900.0	10.154381	5.3338	40.0000	1.9398	40.0000	23.4706	.00800706	.00638897	0.
14000.0	6600.0	10.145506	4.9902	40.0000	1.9420	40.0000	24.1845	.00808556	.00627263	0.
14500.0	6300.0	10.128172	4.6662	40.0000	1.9405	40.0000	24.8846	.00816406	.00614720	0.
15000.0	6000.0	10.103156	4.3609	40.0000	1.9356	40.0000	25.5714	.00824256	.00601350	0.
15500.0	5000.0	10.142012	4.2043	40.0000	1.9596	40.0000	26.0000	.00804631	.00602527	0.
16000.0	1000.0	10.123292	4.2810	40.0000	2.0398	40.0000	26.0000	.00667255	.00630423	0.
16500.0	1.0	10.417365	4.3594	40.0000	2.1213	40.0000	26.0000	.00647669	.00659030	******

4 LANE - 2 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=10.0, LANES= 2. 2. 2. 2., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	77100.0	10.102481	77.9830	40.0000	.5851	160.0000	8.0000	.03045822	.00226474	0.
1000.0	66500.0	10.118768	55.1611	40.0000	.8292	113.2308	8.0000	.02649394	.00330534	0.
1500.0	60500.0	10.105226	40.9397	40.0000	.9358	85.8031	8.0000	.02433518	.00380926	0.
2000.0	55200.0	10.098443	33.2206	40.0000	1.0240	70.8298	8.0000	.02245116	.00424366	0.
2500.0	50400.0	10.106326	28.3243	40.0000	1.1017	61.2539	8.0000	.02076340	.00463898	0.
3000.0	46000.0	10.134596	24.9422	40.0000	1.1733	54.5634	8.0000	.01923264	.00501234	0.
3500.0	41600.0	10.098135	22.1777	40.0000	1.2283	49.1906	8.0000	.01770188	.00531610	0.
4000.0	37600.0	10.114992	20.1761	40.0000	1.2856	45.1965	8.0000	.01632812	.00563331	0.
4500.0	33700.0	10.115909	18.5156	40.0000	1.3362	41.8922	8.0000	.01499361	.00592241	0.
5000.0	29000.0	10.190695	17.7901	40.0000	1.4224	40.0000	8.0000	.01334510	.00637870	0.
5500.0	19000.0	10.096915	18.4960	40.0000	1.5917	40.0000	8.0000	.00961632	.00723514	0.
6000.0	14600.0	10.134409	17.7258	40.0000	1.6820	40.0000	8.6505	.00808556	.00761842	0.
6500.0	13700.0	10.124793	15.9470	40.0000	1.7033	40.0000	9.8713	.00792856	.00756710	0.
7000.0	13000.0	10.187238	14.5839	40.0000	1.7358	40.0000	11.0000	.00785006	.00757132	0.
7500.0	12100.0	10.110440	13.1451	40.0000	1.7492	40.0000	12.3061	.00769306	.00744777	0.
8000.0	11400.0	10.097248	12.0022	40.0000	1.7709	40.0000	13.4948	.00761456	.00737067	0.
8500.0	10800.0	10.101806	11.0243	40.0000	1.7942	40.0000	14.6166	.00757531	.00730168	0.
9000.0	10300.0	10.131780	10.1956	40.0000	1.8199	40.0000	15.6528	.00757531	.00724905	0.
9500.0	9800.0	10.132472	9.4127	40.0000	1.8399	40.0000	16.6891	.00757531	.00716494	0.
10000.0	9300.0	10.104870	8.6712	40.0000	1.8540	40.0000	17.7254	.00757531	.00705040	0.
10500.0	9000.0	10.188206	8.1478	40.0000	1.8835	40.0000	18.5385	.00765361	.00703321	0.
11000.0	8500.0	10.113294	7.4776	40.0000	1.8864	40.0000	19.5641	.00765381	.00686781	0.
11500.0	8200.0	10.162285	7.0155	40.0000	1.9074	40.0000	20.3503	.00773231	.00681369	0.
12000.0	7800.0	10.121825	6.4941	40.0000	1.9118	40.0000	21.2424	.00777156	.00667436	0.

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	7500.0	10.143427	6.0846	40.0000	1.9247	40.0000	22.0000	.00795006	.00659079	0.
13000.0	7200.0	10.153976	5.6982	40.0000	1.9341	40.0000	22.7426	.00792856	.00649533	0.
13500.0	6900.0	10.154381	5.3338	40.0000	1.9398	40.0000	23.4706	.00800706	.00638897	0.
14000.0	6600.0	10.145506	4.9902	40.0000	1.9420	40.0000	24.1845	.00808556	.00627263	0.
14500.0	6300.0	10.128172	4.6662	40.0000	1.9405	40.0000	24.8846	.00816406	.00614720	0.
15000.0	6000.0	10.103156	4.3609	40.0000	1.9356	40.0000	25.5714	.00824256	.00601350	0.
15500.0	5000.0	10.142012	4.2043	40.0000	1.9596	40.0000	26.0000	.00804631	.00602527	0.
16000.0	1000.0	10.123292	4.2810	40.0000	2.0398	40.0000	26.0000	.00667255	.00630423	0.
16500.0	1.0	10.417365	4.3594	40.0000	2.1213	40.0000	26.0000	.00647669	.00659030	******

* LANE - 1 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 3. 0. 2. 0., DISTANCES=10.2,10.2, DIRECTIONAL SPLIT=1.00, .00,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	64000.0	10.142829	80.2453	40.0000	.7897	160.0000	8.0000	.02525102	.00310064	0.
1000.0	34500.0	10.192402	73.2979	40.0000	1.3837	135.5525	8.0000	.01380302	.00570602	0.
1500.0	30800.0	10.121810	48.0727	40.0000	1.3938	92.3077	8.0000	.01246159	.00585001	0.
2000.0	27300.0	10.106402	35.7428	40.0000	1.4117	71.0019	8.0000	.01123867	.00602511	0.
2500.0	24000.0	10.134671	28.5071	40.0000	1.4347	58.3784	8.0000	.01007424	.00622101	0.
3000.0	20800.0	10.146493	23.6104	40.0000	1.4529	49.8195	8.0000	.00894907	.00639309	0.
3500.0	17600.0	10.100757	19.9423	40.0000	1.4604	43.4494	8.0000	.00782389	.00651333	0.
4000.0	12000.0	10.155936	18.2547	40.0000	1.5346	40.0000	8.0000	.00575671	.00694350	0.
4500.0	6900.0	10.164664	16.7795	40.0000	1.6276	40.0000	9.1212	.00388578	.00728616	0.
5000.0	5300.0	10.156695	14.5561	40.0000	1.6547	40.0000	10.8408	.00378111	.00720332	0.
5500.0	5800.0	10.171972	12.8101	40.0000	1.6870	40.0000	12.4930	.00371569	.00713214	0.
6000.0	5300.0	10.095650	11.2259	40.0000	1.7075	40.0000	14.2043	.00365028	.00697905	0.
6500.0	5000.0	10.181909	10.1414	40.0000	1.7487	40.0000	15.5714	.00366336	.00695310	0.
7000.0	4620.0	10.098278	8.9909	40.0000	1.7650	40.0000	17.1005	.00364504	.00678253	0.
7500.0	4400.0	10.180973	8.2134	40.0000	1.8023	40.0000	18.2766	.00368953	.00674609	0.
8000.0	4100.0	10.100962	7.3520	40.0000	1.8140	40.0000	19.6148	.00370261	.00657146	0.
8500.0	3900.0	10.137748	6.7276	40.0000	1.8399	40.0000	20.6934	.00375494	.00649214	0.
9000.0	3700.0	10.146670	6.1516	40.0000	1.8592	40.0000	21.7423	.00380728	.00638791	0.
9500.0	3500.0	10.130708	5.6198	40.0000	1.8719	40.0000	22.7627	.00385961	.00626142	0.
10000.0	3310.0	10.111085	5.1452	40.0000	1.8810	40.0000	23.7290	.00391587	.00613075	0.
10500.0	3140.0	10.111168	4.7389	40.0000	1.8905	40.0000	24.6134	.00397998	.00601588	0.
11000.0	3000.0	10.155922	4.4104	40.0000	1.9052	40.0000	25.3871	.00405586	.00593622	0.
11500.0	1100.0	10.103047	4.1792	40.0000	1.9332	40.0000	26.0000	.00344094	.00593383	0.
12000.0	1.0	10.151005	4.2810	40.0000	2.0398	40.0000	26.0000	.00314042	.00630423	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

* LANE - 1 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 3. 0. 2. 0., DISTANCES=10.2,10.2, DIRECTIONAL SPLIT=1.00, .00,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	129000.0	10.126421	80.2453	40.0000	.7697	160.0000	8.0000	.02376318	.00348467	0.
1000.0	35310.0	10.104920	66.1073	40.0000	1.5874	152.7722	8.0000	.00666171	.00739348	0.
1500.0	31500.0	10.118174	52.9497	40.0000	1.5107	98.8657	8.0000	.00601795	.00750778	0.
2000.0	27500.0	10.109384	36.5243	40.0000	1.4368	72.0522	8.0000	.00533900	.00761054	0.
2500.0	23400.0	10.121943	26.9964	40.0000	1.3738	56.3521	8.0000	.00464154	.00773670	0.
3000.0	19200.0	10.124362	20.7974	40.0000	1.3163	46.0512	8.0000	.00392555	.00785810	0.
3500.0	15000.0	10.148209	17.3482	40.0000	1.3131	40.0000	8.0000	.00328373	.00821387	0.
4000.0	5500.0	10.160123	14.6119	40.0000	1.3397	40.0000	10.0612	.00151220	.00835667	0.
4500.0	4800.0	10.122249	12.1755	40.0000	1.3492	40.0000	12.3846	.00144431	.00829138	0.
5000.0	4300.0	10.115476	10.3831	40.0000	1.3687	40.0000	14.4672	.00141345	.00824530	0.
5500.0	3910.0	10.095972	8.9626	40.0000	1.3890	40.0000	16.3577	.00140295	.00818310	0.
6000.0	3620.0	10.108459	7.8635	40.0000	1.4131	40.0000	17.9974	.00141098	.00814521	0.
6500.0	3400.0	10.154214	7.0019	40.0000	1.4403	40.0000	19.4138	.00143196	.00813405	0.
7000.0	3200.0	10.171591	6.2593	40.0000	1.4632	40.0000	20.7288	.00145665	.00809665	0.
7500.0	3000.0	10.131886	5.5860	40.0000	1.4780	40.0000	22.0000	.00148134	.00800821	0.
8000.0	2830.0	10.109372	5.0311	40.0000	1.4933	40.0000	23.1331	.00151159	.00793385	0.
8500.0	2700.0	10.144432	4.6004	40.0000	1.5142	40.0000	24.0916	.00154924	.00790925	0.
9000.0	2550.0	10.102621	4.1780	40.0000	1.5241	40.0000	25.0702	.00158318	.00781677	0.
9500.0	2430.0	10.112216	3.8455	40.0000	1.5390	40.0000	25.9083	.00162269	.00776697	0.
10000.0	1.0	10.574396	3.8909	40.0000	1.6272	40.0000	26.0000	.00123464	.00822528	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

* LANE - 1 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 3. 0. 1. 1., DISTANCES=10.2,10.2, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	65000.0	10.123363	80.2453	40.0000	.7897	160.0000	8.0000	.05115621	.00310064	0.
1000.0	34610.0	10.697699	74.8231	40.0000	1.4083	137.6597	8.0000	.02743072	.00581505	0.
1500.0	31100.0	10.154262	50.0602	40.0000	1.4417	95.0086	8.0000	.02480618	.00606415	0.
2000.0	27700.0	10.159551	37.3356	40.0000	1.4627	73.1341	8.0000	.02226800	.00625532	0.
2500.0	24400.0	10.145085	29.5937	40.0000	1.4781	59.8122	8.0000	.01980831	.00641874	0.
3000.0	21200.0	10.126535	24.4091	40.0000	1.4911	50.8599	8.0000	.01742713	.00656891	0.
3500.0	18100.0	10.111217	20.7111	40.0000	1.5033	44.4405	8.0000	.01512444	.00671263	0.
4000.0	15000.0	10.189948	18.2547	40.0000	1.5346	40.0000	8.0000	.01282176	.00694350	0.
4500.0	7200.0	10.177559	17.4853	40.0000	1.6683	40.0000	8.7647	.00682955	.00753432	0.
5000.0	6600.0	10.180105	15.1909	40.0000	1.6961	40.0000	10.4228	.00648938	.00745822	0.
5500.0	6000.0	10.108582	13.2103	40.0000	1.7164	40.0000	12.1724	.00614921	.00731347	0.
6000.0	5600.0	10.170349	11.8083	40.0000	1.7552	40.0000	13.6667	.00596604	.00727333	0.
6500.0	5200.0	10.158589	10.5216	40.0000	1.7834	40.0000	15.1818	.00578288	.00716506	0.
7000.0	4820.0	10.099969	9.3649	40.0000	1.8033	40.0000	16.6767	.00561541	.00701147	0.
7500.0	4530.0	10.101297	8.4516	40.0000	1.8294	40.0000	17.9864	.00551859	.00690493	0.
8000.0	4300.0	10.144054	7.7115	40.0000	1.8593	40.0000	19.1453	.00546887	.00683110	0.
8500.0	4040.0	10.104503	6.9736	40.0000	1.8743	40.0000	20.3516	.00539561	.00668384	0.
9000.0	3820.0	10.094420	6.3572	40.0000	1.8909	40.0000	21.4399	.00535374	.00656015	0.
9500.0	3630.0	10.108581	5.8366	40.0000	1.9087	40.0000	22.4266	.00533542	.00645599	0.
10000.0	3440.0	10.102083	5.3557	40.0000	1.9204	40.0000	23.3852	.00531711	.00633274	0.
10500.0	3300.0	10.168822	4.9902	40.0000	1.9420	40.0000	24.1845	.00533804	.00627263	0.
11000.0	3100.0	10.111808	4.5624	40.0000	1.9393	40.0000	25.1150	.00531187	.00610351	0.
11500.0	2930.0	10.097424	4.2115	40.0000	1.9411	40.0000	25.9399	.00530926	.00597106	0.
12000.0	1.0	10.303988	4.2810	40.0000	2.0398	40.0000	26.0000	.00314081	.00630423	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUFUE (METERS)	QUEUE (CARS)	CYCLE TIME	GPEEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

1 LANE - 1 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 3. 0. 1. 1., DISTANCES=10.2,10.2, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	131000.0	10.134278	80.2453	40.0000	.7897	160.0000	8.0000	.04857564	.00348467	0.
1000.0	35500.0	10.105747	69.7416	40.0000	1.6441	157.4643	8.0000	.01327035	.00765424	0.
1500.0	31800.0	10.117015	55.3212	40.0000	1.5667	101.9704	8.0000	.01196183	.00776595	0.
2000.0	23000.0	10.168038	38.6125	40.0000	1.5033	74.8193	8.0000	.01061628	.00791895	0.
2500.0	24000.0	10.155931	28.5071	40.0000	1.4347	58.3784	8.0000	.00919666	.00802237	0.
3000.0	20000.0	10.192111	22.1334	40.0000	1.3816	47.8613	8.0000	.00777704	.00817054	0.
3500.0	15600.0	10.195905	17.3482	40.0000	1.3131	40.0000	8.0000	.00620929	.00821387	0.
4000.0	5800.0	10.126788	15.2944	40.0000	1.3771	40.0000	9.5984	.00264172	.00861584	0.
4500.0	5100.0	10.133407	12.8231	40.0000	1.3898	40.0000	11.8148	.00244421	.00858942	0.
5000.0	4600.0	10.178487	11.0201	40.0000	1.4142	40.0000	13.8067	.00232077	.00858972	0.
5500.0	4170.0	10.198045	9.4256	40.0000	1.4267	40.0000	15.8115	.00220843	.00847235	0.
6000.0	3810.0	10.199794	8.2572	40.0000	1.4496	40.0000	17.4866	.00215165	.00842447	0.
6500.0	3600.0	10.192191	7.4067	40.0000	1.4827	40.0000	18.8487	.00213560	.00845568	0.
7000.0	3330.0	10.185984	6.5157	40.0000	1.4936	40.0000	20.3431	.00209733	.00832406	0.
7500.0	3140.0	10.188598	5.8537	40.0000	1.5138	40.0000	21.5700	.00208869	.00827117	0.
8000.0	3000.0	10.172423	5.3449	40.0000	1.5402	40.0000	22.6000	.00209857	.00827279	0.
8500.0	2820.0	10.112831	4.8139	40.0000	1.5498	40.0000	23.7086	.00209363	.00816181	0.
9000.0	2700.0	10.160679	4.4346	40.0000	1.5715	40.0000	24.5862	.00211091	.00814773	0.
9500.0	2550.0	10.111879	4.0425	40.0000	1.5794	40.0000	25.5178	.00211708	.00804541	0.
10000.0	1.0	10.252106	3.8909	40.0000	1.6272	40.0000	26.0000	.00123482	.00822528	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

7 LANE - 1 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 3. 0. 3. 0., DISTANCES=10.2,10.2, DIRECTIONAL SPLIT=1.00, .00,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	67000.0	10.162295	80.2453	40.0000	.7897	160.0000	8.0000	.01661596	.00310064	0.
1000.0	48600.0	10.113524	52.2905	40.0000	1.0349	104.8986	8.0000	.01297876	.00420181	0.
1500.0	42700.0	10.102546	36.3780	40.0000	1.1045	75.5934	8.0000	.01156575	.00458636	0.
2000.0	37400.0	10.120215	28.2839	40.0000	1.1670	60.5558	8.0000	.01030974	.00494277	0.
2500.0	32400.0	10.105076	23.1662	40.0000	1.2167	51.0376	8.0000	.00913223	.00524439	0.
3000.0	27700.0	10.093400	19.6802	40.0000	1.2611	44.5082	8.0000	.00803323	.00552299	0.
3500.0	23000.0	10.123727	17.3482	40.0000	1.3131	40.0000	8.0000	.00693422	.00583702	0.
4000.0	10300.0	10.105505	17.8385	40.0000	1.5129	40.0000	8.1888	.00374186	.00681472	0.
4500.0	9400.0	10.115770	15.3496	40.0000	1.5436	40.0000	9.9496	.00363719	.00677689	0.
5000.0	8600.0	10.117992	13.3759	40.0000	1.5764	40.0000	11.7059	.00355869	.00672328	0.
5500.0	8000.0	10.181641	11.8773	40.0000	1.6176	40.0000	13.2963	.00353253	.00670512	0.
6000.0	7400.0	10.160243	10.5099	40.0000	1.6477	40.0000	14.9104	.00350636	.00661348	0.
6500.0	6900.0	10.148703	9.3750	40.0000	1.6772	40.0000	16.4030	.00350636	.00652155	0.
7000.0	6500.0	10.169936	8.4510	40.0000	1.7087	40.0000	17.7407	.00353253	.00644911	0.
7500.0	6100.0	10.140094	7.5980	40.0000	1.7310	40.0000	19.0588	.00355869	.00633254	0.
8000.0	5800.0	10.176373	6.9305	40.0000	1.7596	40.0000	20.1884	.00361103	.00626429	0.
8500.0	5500.0	10.181377	6.3164	40.0000	1.7812	40.0000	21.2857	.00366336	.00616902	0.
9000.0	5200.0	10.158530	5.7512	40.0000	1.7960	40.0000	22.3521	.00371569	.00604968	0.
9500.0	4900.0	10.111012	5.2309	40.0000	1.8040	40.0000	23.3889	.00376803	.00590903	0.
10000.0	4700.0	10.173297	4.8597	40.0000	1.8263	40.0000	24.2109	.00384653	.00585443	0.
10500.0	4410.0	10.102551	4.4262	40.0000	1.8245	40.0000	25.1690	.00390148	.00569283	0.
11000.0	4200.0	10.126716	4.1080	40.0000	1.8355	40.0000	25.9474	.00397736	.00560618	0.
11500.0	1.0	10.223424	4.1792	40.0000	1.9332	40.0000	26.0000	.00300945	.00593383	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

* LANE - 1 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 3. 0. 3. 0., DISTANCES=10.2,10.2, DIRECTIONAL SPLIT=1.00, .00,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	125000.0	10.118565	80.2453	40.0000	.7697	160.0000	8.0000	.01549236	.00348467	0.
1000.0	51800.0	10.160749	73.7539	40.0000	1.3910	136.1842	8.0000	.00651790	.00650569	0.
1500.0	45500.0	10.111889	45.2465	40.0000	1.3251	88.3986	8.0000	.00580192	.00666600	0.
2000.0	39100.0	10.100008	31.4932	40.0000	1.2735	65.1455	8.0000	.00507359	.00686241	0.
2500.0	32700.0	10.110353	23.5473	40.0000	1.2325	51.5781	8.0000	.00434527	.00707804	0.
3000.0	26300.0	10.112735	18.3869	40.0000	1.1965	42.6877	8.0000	.00361694	.00728678	0.
3500.0	8800.0	10.151093	16.6289	40.0000	1.2784	40.0000	8.3821	.00151837	.00798820	0.
4000.0	7600.0	10.148148	13.6355	40.0000	1.2856	40.0000	10.7931	.00143196	.00797609	0.
4500.0	6700.0	10.142853	11.4491	40.0000	1.3032	40.0000	13.0714	.00138259	.00794948	0.
5000.0	6000.0	10.106240	9.7356	40.0000	1.3217	40.0000	15.1818	.00135790	.00788750	0.
5500.0	5500.0	10.110723	8.4431	40.0000	1.3458	40.0000	17.0000	.00135790	.00785270	0.
6000.0	5100.0	10.113584	7.4021	40.0000	1.3693	40.0000	18.6216	.00137024	.00781235	0.
6500.0	4800.0	10.157604	6.5930	40.0000	1.3964	40.0000	20.0088	.00139493	.00780339	0.
7000.0	4500.0	10.137413	5.8623	40.0000	1.4150	40.0000	21.3478	.00141962	.00773896	0.
7500.0	4230.0	10.105433	5.2405	40.0000	1.4307	40.0000	22.5754	.00144801	.00766310	0.
8000.0	4010.0	10.108274	4.7414	40.0000	1.4489	40.0000	23.6445	.00148258	.00761524	0.
8500.0	3800.0	10.094576	4.3043	40.0000	1.4635	40.0000	24.6423	.00151837	.00755268	0.
9000.0	3620.0	10.106006	3.9451	40.0000	1.4798	40.0000	25.5261	.00155788	.00751058	0.
9500.0	1.0	10.225306	3.8002	40.0000	1.5296	40.0000	26.0000	.00117285	.00770469	******

MAIN ADT | CROSS ADT | CONCEN-TRATION | DELAY TIME | QUEUE (METERS) | QUEUE (CARS) | CYCLE TIME | GREEN TIME | CRUISE EMISSION | QUEUE EMISSION | ERROR CHECK

? LAYE - 1 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 3. 0. 2. 1., DISTANCES=10.2,10.2, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	64000.0	10.142929	80.2453	40.0000	.7897	160.0000	8.0000	.03781111	.00310064	0.
1000.0	34500.0	10.192402	73.2979	40.0000	1.3637	135.5525	8.0000	.02057369	.00570602	0.
1500.0	23800.0	10.121810	48.0727	40.0000	1.3938	92.3077	8.0000	.01852614	.00585001	0.
2000.0	17300.0	10.106402	35.7428	40.0000	1.4117	71.0019	8.0000	.01659633	.00602511	0.
2500.0	14000.0	10.134671	28.5071	40.0000	1.4347	58.3784	8.0000	.01478428	.00622101	0.
3000.0	10800.0	10.146493	23.6104	40.0000	1.4529	49.8195	8.0000	.01303110	.00639309	0.
3500.0	9100.0	10.100357	19.9423	40.0000	1.4604	43.4494	8.0000	.01127792	.00651333	0.
4000.0	8000.0	10.155936	18.2547	40.0000	1.5346	40.0000	8.0000	.00811173	.00694350	0.
4500.0	6900.0	10.164664	16.7795	40.0000	1.6276	40.0000	9.1212	.00523991	.00728616	0.
5000.0	6300.0	10.156695	14.5561	40.0000	1.6547	40.0000	10.8408	.00501750	.00720332	0.
5500.0	5800.0	10.171972	12.8101	40.0000	1.6670	40.0000	12.4930	.00485395	.00713214	0.
6000.0	5300.0	10.165650	11.2259	40.0000	1.7075	40.0000	14.2043	.00469041	.00697905	0.
6500.0	5000.0	10.121909	10.1414	40.0000	1.7487	40.0000	15.5714	.00464462	.00695310	0.
7000.0	4620.0	10.098278	8.9909	40.0000	1.7650	40.0000	17.1005	.00455173	.00678253	0.
7500.0	4400.0	10.110973	8.2134	40.0000	1.8023	40.0000	18.2766	.00455303	.00674609	0.
8000.0	4100.0	10.100962	7.3520	40.0000	1.8140	40.0000	19.6148	.00450724	.00657146	0.
8500.0	3900.0	10.137748	6.7276	40.0000	1.8399	40.0000	20.6934	.00452032	.00649214	0.
9000.0	3700.0	10.146670	6.1516	40.0000	1.8592	40.0000	21.7423	.00453341	.00638791	0.
9500.0	3500.0	10.130708	5.6198	40.0000	1.8719	40.0000	22.7627	.00454649	.00626142	0.
10000.0	3310.0	10.111085	5.1452	40.0000	1.8810	40.0000	23.7290	.00456546	.00613075	0.
10500.0	3140.0	10.111168	4.7389	40.0000	1.8905	40.0000	24.6134	.00459621	.00601588	0.
11000.0	3000.0	10.155922	4.4104	40.0000	1.9052	40.0000	25.3871	.00464462	.00593822	0.
11500.0	1100.0	10.103047	4.1792	40.0000	1.9332	40.0000	26.0000	.00365662	.00593383	0.
12000.0	1.0	10.551005	4.2810	40.0000	2.0398	40.0000	26.0000	.00314061	.00630423	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

' LANE - 1 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

'IGNAL=1 SPEED=30.0. LANES= 3. 0. 2. 1., DISTANCES=10.2,10.2. DIRECTIONAL SPLIT=1.00. .00. .50. .50.

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	12[illegible]000.0	10.126421	80.2453	40.0000	.7697	160.0000	8.0000	.03561391	.00348467	0.
1000.0	35310.0	10.104920	86.1073	40.0000	1.5874	152.7722	6.0000	.00993085	.00739348	0.
1500.0	31500.0	10.118174	52.9497	40.0000	1.5107	98.8657	8.0000	.00893434	.00750778	0.
2000.0	27500.0	10.109384	36.5243	40.0000	1.4368	72.0522	8.0000	.00798506	.00761054	0.
2500.0	23400.0	10.121943	26.9964	40.0000	1.3738	56.3521	8.0000	.00680800	.00773670	0.
3000.0	19200.0	10.124362	20.7974	40.0000	1.3163	46.0512	8.0000	.00570316	.00785810	0.
3500.0	10000.0	10.148209	17.3482	40.0000	1.3131	40.0000	8.0000	.00320957	.00821387	0.
4000.0	5500.0	10.160123	14.6119	40.0000	1.3397	40.0000	10.0612	.00202141	.00835667	0.
4500.0	4800.0	10.122249	12.1755	40.0000	1.3492	40.0000	12.3846	.00188871	.00829138	0.
5000.0	4300.0	10.115476	10.3831	40.0000	1.3687	40.0000	14.4672	.00181156	.00824530	0.
5500.0	3910.0	10.095972	8.9626	40.0000	1.3890	40.0000	16.3577	.00176496	.00818310	0.
6000.0	3620.0	10.108459	7.8635	40.0000	1.4131	40.0000	17.9974	.00174613	.00814521	0.
6500.0	3400.0	10.154214	7.0019	40.0000	1.4403	40.0000	19.4138	.00174675	.00813405	0.
7000.0	3200.0	10.171541	6.2593	40.0000	1.4632	40.0000	20.7288	.00175292	.00809665	0.
7500.0	3000.0	10.131886	5.5860	40.0000	1.4780	40.0000	22.0000	.00175909	.00800821	0.
8000.0	2830.0	10.109372	5.0311	40.0000	1.4933	40.0000	23.1331	.00177360	.00793385	0.
8500.0	2700.0	10.144432	4.6004	40.0000	1.5142	40.0000	24.0916	.00179921	.00790925	0.
9000.0	2550.0	10.102621	4.1780	40.0000	1.5241	40.0000	25.0702	.00181927	.00781677	0.
9500.0	2430.0	10.112216	3.8455	40.0000	1.5390	40.0000	25.9083	.00184766	.00776697	0.
10000.0	1.0	10.574396	3.8909	40.0000	1.6272	40.0000	26.0000	.00123473	.00822528	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

' LANE - 1 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (CONGESTED)

'IGNAL=1 SPEED=15.0, LANES= 3. 0. 2. 2., DISTANCES=10.2,10.2, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	69400.0	10.105318	64.2607	40.0000	.6468	133.0833	8.0000	.02737053	.00252917	0.
1000.0	60100.0	10.111076	38.9136	40.0000	.8026	83.7139	8.0000	.02385109	.00323965	0.
1500.0	52500.0	10.117957	29.1350	40.0000	.9182	64.4985	8.0000	.02099890	.00379875	0.
2000.0	46000.0	10.175205	23.9110	40.0000	1.0188	54.0568	8.0000	.01857847	.00430350	0.
2500.0	39600.0	10.102290	20.1327	40.0000	1.0891	46.6391	8.0000	.01619729	.00468493	0.
3000.0	34000.0	10.128655	17.7052	40.0000	1.1621	41.7128	8.0000	.01413010	.00508188	0.
3500.0	24000.0	10.113828	17.3482	40.0000	1.3131	40.0000	8.0000	.01033591	.00583702	0.
4000.0	13400.0	10.144216	17.4234	40.0000	1.4912	40.0000	8.3879	.00630621	.00668567	0.
4500.0	12200.0	10.121204	14.9832	40.0000	1.5217	40.0000	10.1868	.00596604	.00664485	0.
5000.0	11200.0	10.125262	13.1001	40.0000	1.5578	40.0000	11.9254	.00570438	.00660988	0.
5500.0	10300.0	10.094245	11.5097	40.0000	1.5899	40.0000	13.6352	.00548196	.00653514	0.
6000.0	9600.0	10.104341	10.2479	40.0000	1.6255	40.0000	15.1818	.00533804	.00647859	0.
6500.0	9000.0	10.113046	9.1818	40.0000	1.6589	40.0000	16.6226	.00523337	.00641185	0.
7000.0	8500.0	10.138567	8.2930	40.0000	1.6920	40.0000	17.9346	.00516795	.00635092	0.
7500.0	8000.0	10.117062	7.4742	40.0000	1.7163	40.0000	19.2222	.00510254	.00624668	0.
8000.0	7600.0	10.139009	6.8096	40.0000	1.7437	40.0000	20.3577	.00507637	.00617565	0.
8500.0	7200.0	10.130469	6.1986	40.0000	1.7641	40.0000	21.4604	.00505020	.00607584	0.
9000.0	6800.0	10.094842	5.6367	40.0000	1.7775	40.0000	22.5319	.00502404	.00595223	0.
9500.0	6500.0	10.132117	5.2031	40.0000	1.7990	40.0000	23.4348	.00503712	.00588370	0.
10000.0	6200.0	10.154466	4.8059	40.0000	1.8158	40.0000	24.3038	.00505020	.00580206	0.
10500.0	5900.0	10.163857	4.4418	40.0000	1.8279	40.0000	25.1407	.00506329	.00570904	0.
11000.0	5300.0	10.096585	4.0803	40.0000	1.8290	40.0000	26.0000	.00495862	.00557555	0.
11500.0	100.0	10.119743	4.1792	40.0000	1.9332	40.0000	26.0000	.00304844	.00593383	0.
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

* LANE - 1 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 3. 0. 2. 2., DISTANCES=10.2,10.2, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	126000.0	10.099878	80.2453	40.0000	.7897	160.0000	8.0000	.02339284	.00348467	0.
1000.0	67700.0	10.111435	65.3442	40.0000	1.2538	124.3088	8.0000	.01265929	.00589961	0.
1500.0	59100.0	10.121400	41.1117	40.0000	1.2232	82.5318	8.0000	.01112857	.00621156	0.
2000.0	50500.0	10.112555	29.1242	40.0000	1.1951	61.7718	8.0000	.00959786	.00650698	0.
2500.0	42000.0	10.099440	22.0797	40.0000	1.1713	49.4821	8.0000	.00808565	.00679443	0.
3000.0	34000.0	10.157304	17.7052	40.0000	1.1621	41.7128	8.0000	.00666603	.00712309	0.
3500.0	11700.0	10.122534	16.5874	40.0000	1.2764	40.0000	8.4053	.00259852	.00797505	0.
4000.0	10100.0	10.098636	13.5981	40.0000	1.2835	40.0000	10.8229	.00236397	.00796125	0.
4500.0	9000.0	10.140703	11.5222	40.0000	1.3078	40.0000	13.0000	.00222201	.00798425	0.
5000.0	8100.0	10.125110	9.8443	40.0000	1.3296	40.0000	15.0587	.00211708	.00794815	0.
5500.0	7400.0	10.103900	8.5147	40.0000	1.3518	40.0000	16.9095	.00204919	.00789865	0.
6000.0	6900.0	10.137592	7.5075	40.0000	1.3794	40.0000	18.4765	.00201833	.00788693	0.
6500.0	6500.0	10.184988	6.6956	40.0000	1.4075	40.0000	19.8571	.00200598	.00788693	0.
7000.0	6100.0	10.168853	5.9618	40.0000	1.4272	40.0000	21.1901	.00199364	.00782930	0.
7500.0	5700.0	10.095355	5.2982	40.0000	1.4387	40.0000	22.4777	.00198129	.00772118	0.
8000.0	5410.0	10.103499	4.8000	40.0000	1.4580	40.0000	23.5395	.00198932	.00768013	0.
8500.0	5200.0	10.180418	4.4227	40.0000	1.4840	40.0000	24.4194	.00201215	.00769613	0.
9000.0	4900.0	10.117608	4.0075	40.0000	1.4918	40.0000	25.4024	.00201833	.00759317	0.
9500.0	1000.0	10.125652	3.8002	40.0000	1.5296	40.0000	26.0000	.00135790	.00770469	0.
10000.0	1.0	10.738965	3.8909	40.0000	1.6272	40.0000	26.0000	.00123464	.00822528	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 1 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 2. 0. 2. 0., DISTANCES= 8.5, 8.5, DIRECTIONAL SPLIT=1.00, .00,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	56000.0	10.134319	85.4262	40.0000	1.2170	160.0000	8.0000	.02217641	.00492900	0.
1000.0	32700.0	10.170779	63.7511	40.0000	1.7620	112.5765	8.0000	.01322735	.00753620	0.
1500.0	25200.0	10.094660	41.9960	40.0000	1.7636	76.9674	8.0000	.01165734	.00779445	0.
2000.0	24000.0	10.108084	31.5037	40.0000	1.8202	59.5683	8.0000	.01020507	.00812087	0.
2500.0	20000.0	10.134247	25.2248	40.0000	1.8556	49.0667	8.0000	.00883131	.00843843	0.
3000.0	16100.0	10.128663	20.9303	40.0000	1.8815	41.8922	8.0000	.00749680	.00870746	0.
3500.0	9500.0	10.127382	19.0693	40.0000	2.0279	40.0000	8.6667	.00471003	.00941813	0.
4000.0	7700.0	10.108662	15.9749	40.0000	2.0769	40.0000	10.6752	.00459228	.00930611	0.
4500.0	7000.0	10.107424	13.6585	40.0000	2.1314	40.0000	12.6522	.00451378	.00920252	0.
5000.0	6400.0	10.101822	11.8291	40.0000	2.1846	40.0000	14.5439	.00447453	.00908207	0.
5500.0	5900.0	10.105017	10.3664	40.0000	2.2365	40.0000	16.2982	.00447453	.00896000	0.
6000.0	5500.0	10.143615	9.2113	40.0000	2.2907	40.0000	17.8696	.00451378	.00886707	0.
6500.0	5100.0	10.114859	8.1634	40.0000	2.3285	40.0000	19.4138	.00455303	.00869624	0.
7000.0	4800.0	10.165922	7.3687	40.0000	2.3762	40.0000	20.7288	.00463153	.00860593	0.
7500.0	4500.0	10.176857	6.6483	40.0000	2.4116	40.0000	22.0000	.00471003	.00846926	0.
8000.0	4200.0	10.152541	5.9944	40.0000	2.4348	40.0000	23.2295	.00478854	.00829171	0.
8500.0	3900.0	10.097255	5.4008	40.0000	2.4458	40.0000	24.4194	.00486704	.00807839	0.
9000.0	3700.0	10.183110	5.0009	40.0000	2.4816	40.0000	25.3465	.00498479	.00801653	0.
9500.0	1000.0	10.170420	4.7797	40.0000	2.5511	40.0000	26.0000	.00412128	.00813572	0.
10000.0	1.0	10.813393	4.9626	40.0000	2.7341	40.0000	26.0000	.00392542	.00881259	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

? LANE - 1 WAY MAIN STREET WITH 2 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 0. 2. 0., DISTANCES= 8.5, 8.5, DIRECTIONAL SPLIT=1.00, .00,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	110000.0	10.130959	85.4262	40.0000	1.2170	160.0000	8.0000	.02046102	.00550733	0.
1000.0	33500.0	10.179381	73.5035	40.0000	1.9807	124.0449	8.0000	.00638828	.00973538	0.
1500.0	28600.0	10.094203	44.1278	40.0000	1.8558	79.5007	8.0000	.00557355	.00982249	0.
2000.0	27600.0	10.112516	30.2917	40.0000	1.7653	58.1461	8.0000	.00474029	.01003488	0.
2500.0	19500.0	10.137889	22.2712	40.0000	1.6674	45.6198	8.0000	.00388852	.01026101	0.
3000.0	7400.0	10.109258	17.9692	40.0000	1.6958	40.0000	8.5385	.00192574	.01075872	0.
3500.0	6400.0	10.168288	14.3771	40.0000	1.7217	40.0000	11.1414	.00183316	.01079551	0.
4000.0	5600.0	10.184899	11.8083	40.0000	1.7552	40.0000	13.6667	.00177761	.01077210	0.
4500.0	4930.0	10.105019	9.7822	40.0000	1.7804	40.0000	16.0880	.00174613	.01062983	0.
5000.0	4500.0	10.143405	8.3969	40.0000	1.8232	40.0000	18.0526	.00175909	.01061100	0.
5500.0	4110.0	10.108332	7.2292	40.0000	1.8538	40.0000	19.8928	.00177946	.01050497	0.
6000.0	3800.0	10.098338	6.3229	40.0000	1.8857	40.0000	21.4898	.00181464	.01042350	0.
6500.0	3540.0	10.101490	5.5996	40.0000	1.9167	40.0000	22.8964	.00185908	.01035445	0.
7000.0	3310.0	10.105426	5.0059	40.0000	1.9451	40.0000	24.1581	.00190908	.01028464	0.
7500.0	3100.0	10.106137	4.5108	40.0000	1.9702	40.0000	25.3019	.00196278	.01020998	0.
8000.0	1.0	10.246404	4.2810	40.0000	2.0398	40.0000	26.0000	.00148153	.01045761	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

LANE - 1 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 2. 0. 1. 1., DISTANCES= 8.5, 8.5, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	58000.0	10.145239	85.4262	40.0000	1.2170	160.0000	8.0000	.04572658	.00492900	0.
1000.0	32910.0	10.102152	66.0675	40.0000	1.8146	115.3766	8.0000	.02622704	.00778487	0.
1500.0	23600.0	10.115054	44.1278	40.0000	1.8558	79.5007	8.0000	.02303992	.00813976	0.
2000.0	24500.0	10.134621	33.1394	40.0000	1.8936	61.4471	8.0000	.02001765	.00847676	0.
2500.0	20500.0	10.110341	26.3543	40.0000	1.9186	50.3343	8.0000	.01707388	.00874627	0.
3000.0	16700.0	10.125906	21.9409	40.0000	1.9490	43.0018	8.0000	.01428710	.00904334	0.
3500.0	8900.0	10.139813	20.1001	40.0000	2.0914	40.0000	8.2903	.00836031	.00983088	0.
4000.0	8100.0	10.116359	16.8258	40.0000	2.1389	40.0000	10.2231	.00792856	.00970781	0.
4500.0	7400.0	10.134117	14.4265	40.0000	2.1965	40.0000	12.1261	.00757531	.00962231	0.
5000.0	6800.0	10.159385	12.5538	40.0000	2.2553	40.0000	13.9492	.00730055	.00953355	0.
5500.0	6210.0	10.098515	10.9067	40.0000	2.2971	40.0000	15.7874	.00703365	.00933918	0.
6000.0	5800.0	10.153589	9.7184	40.0000	2.3556	40.0000	17.3390	.00690805	.00926305	0.
6500.0	5400.0	10.155544	8.6561	40.0000	2.4003	40.0000	18.8487	.00679030	.00912131	0.
7000.0	5000.0	10.098281	7.6875	40.0000	2.4288	40.0000	20.3333	.00667255	.00890783	0.
7500.0	4700.0	10.128874	6.9574	40.0000	2.4691	40.0000	21.5902	.00663330	.00878843	0.
8000.0	4400.0	10.124957	6.2936	40.0000	2.4974	40.0000	22.8065	.00659405	.00862722	0.
8500.0	4110.0	10.106094	5.7040	40.0000	2.5172	40.0000	23.9627	.00656265	.00844667	0.
9000.0	3900.0	10.190165	5.2799	40.0000	2.5544	40.0000	24.9070	.00659405	.00838094	0.
9500.0	3400.0	10.096502	4.7797	40.0000	2.5511	40.0000	26.0000	.00639780	.00813572	0.
10000.0	1.0	10.468091	4.9626	40.0000	2.7341	40.0000	26.0000	.00392581	.00881259	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 1 WAY MAIN STREET WITH 2 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 0. 1. 1., DISTANCES= 8.5, 8.5, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	114000.0	10.107694	85.4262	40.0000	1.2170	160.0000	8.0000	.04231081	.00550733	0.
1000.0	33730.0	10.106715	76.8466	40.0000	2.0539	127.7876	8.0000	.01267658	.01009612	0.
1500.0	29100.0	10.133906	47.0794	40.0000	1.9543	82.8829	8.0000	.01105451	.01030777	0.
2000.0	24300.0	10.156176	32.4680	40.0000	1.8636	60.6816	8.0000	.00936948	.01052338	0.
2500.0	19300.0	10.133317	23.7720	40.0000	1.7734	47.3955	8.0000	.00761039	.01069597	0.
3000.0	8000.0	10.128388	19.2597	40.0000	1.7681	40.0000	8.0000	.00351819	.01125769	0.
3500.0	6800.0	10.106680	15.2103	40.0000	1.7782	40.0000	10.5922	.00316637	.01121006	0.
4000.0	6000.0	10.175086	12.5837	40.0000	1.8176	40.0000	13.0000	.00296268	.01124830	0.
4500.0	5300.0	10.129078	10.4764	40.0000	1.8465	40.0000	15.3673	.00279603	.01114206	0.
5000.0	4800.0	10.131883	8.9445	40.0000	1.8843	40.0000	17.4082	.00270345	.01108331	0.
5500.0	4400.0	10.131969	7.7429	40.0000	1.9208	40.0000	19.2222	.00264790	.01101544	0.
6000.0	4100.0	10.182323	6.8360	40.0000	1.9630	40.0000	20.7624	.00262938	.01100263	0.
6500.0	3800.0	10.157235	6.0272	40.0000	1.9909	40.0000	22.2427	.00261086	.01089642	0.
7000.0	3520.0	10.101498	5.3368	40.0000	2.0108	40.0000	23.6160	.00259975	.01075591	0.
7500.0	3300.0	10.109058	4.8122	40.0000	2.0381	40.0000	24.7778	.00261086	.01068659	0.
8000.0	3100.0	10.121086	4.3755	40.0000	2.0635	40.0000	25.8288	.00262938	.01062152	0.
8500.0	1.0	10.658291	4.4396	40.0000	2.2043	40.0000	26.0000	.00157430	.01136185	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 1 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=15.0, LANES= 2. 0. 3. 0., DISTANCES= 5.5, 6.5, DIRECTIONAL SPLIT=1.00, .00,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	54000.0	10.123399	85.4262	40.0000	1.2170	160.0000	8.0000	.01432636	.00492900	0.
1000.0	45800.0	10.117890	46.4207	40.0000	1.3537	90.0326	8.0000	.01237692	.00567192	0.
1500.0	39000.0	10.168435	32.9165	40.0000	1.4663	65.5842	8.0000	.01079383	.00631881	0.
2000.0	32600.0	10.126596	25.5440	40.0000	1.5450	52.3168	8.0000	.00931540	.00681831	0.
2500.0	26700.0	10.115128	21.0787	40.0000	1.6180	44.1718	8.0000	.00796781	.00729496	0.
3000.0	19000.0	10.159908	19.2597	40.0000	1.7681	40.0000	8.0000	.00588754	.00814998	0.
3500.0	11600.0	10.144019	17.2450	40.0000	1.9123	40.0000	9.4629	.00440912	.00867819	0.
4000.0	10500.0	10.141008	14.5463	40.0000	1.9702	40.0000	11.5455	.00431753	.00862228	0.
4500.0	9500.0	10.093801	12.4027	40.0000	2.0221	40.0000	13.6154	.00425211	.00850618	0.
5000.0	9800.0	10.154891	10.8693	40.0000	2.0682	40.0000	15.4049	.00426520	.00847604	0.
5500.0	8100.0	10.121561	9.4957	40.0000	2.1359	40.0000	17.1835	.00427828	.00834143	0.
6000.0	7600.0	10.182165	8.4786	40.0000	2.1941	40.0000	18.6867	.00434370	.00828817	0.
6500.0	7100.0	10.184765	7.5614	40.0000	2.2381	40.0000	20.1454	.00440912	.00817074	0.
7000.0	6600.0	10.135758	6.7320	40.0000	2.2677	40.0000	21.5614	.00447453	.00799619	0.
7500.0	6200.0	10.149041	6.0835	40.0000	2.3030	40.0000	22.7880	.00456612	.00787929	0.
8000.0	5800.0	10.132098	5.4987	40.0000	2.3273	40.0000	23.9663	.00465770	.00772893	0.
8500.0	5410.0	10.100836	4.9807	40.0000	2.3433	40.0000	25.0837	.00475190	.00756160	0.
9000.0	5000.0	10.157213	4.6056	40.0000	2.3746	40.0000	26.0000	.00484087	.00749351	0.
9500.0	1.0	10.387277	4.7797	40.0000	2.5511	40.0000	26.0000	.00372904	.00813572	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 1 WAY MAIN STREET WITH 3 LANE - 1 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 0. 3. 0., DISTANCES= 8.5, 8.5, DIRECTIONAL SPLIT=1.00, .00,1.00, .00,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	105000.0	10.106092	85.4262	40.0000	1.2170	160.0000	8.0000	.01305432	.00550733	0.
1000.0	48700.0	10.104183	61.3482	40.0000	1.7070	109.6205	8.0000	.00619694	.00842047	0.
1500.0	41000.0	10.153423	37.9527	40.0000	1.6443	72.0522	8.0000	.00533900	.00880168	0.
2000.0	33000.0	10.108687	26.1440	40.0000	1.5733	53.0769	8.0000	.00444402	.00909488	0.
2500.0	25100.0	10.107448	19.4457	40.0000	1.5218	42.1338	8.0000	.00356139	.00943089	0.
3000.0	10200.0	10.152942	16.5488	40.0000	1.6142	40.0000	9.2449	.00181464	.01019144	0.
3500.0	9700.0	10.132560	13.1496	40.0000	1.6366	40.0000	12.0538	.00172206	.01016539	0.
4000.0	7600.0	10.110141	10.7710	40.0000	1.6697	40.0000	14.6471	.00167885	.01011578	0.
4500.0	6800.0	10.097447	9.0308	40.0000	1.7068	40.0000	16.9262	.00167268	.01006095	0.
5000.0	6200.0	10.101947	7.7216	40.0000	1.7455	40.0000	18.8978	.00169120	.01001450	0.
5500.0	5710.0	10.100156	6.6886	40.0000	1.7811	40.0000	20.6390	.00172329	.00995522	0.
6000.0	5300.0	10.101097	5.8656	40.0000	1.8143	40.0000	22.1748	.00176526	.00989471	0.
6500.0	5000.0	10.178498	5.2600	40.0000	1.8559	40.0000	23.4407	.00182082	.00991295	0.
7000.0	4620.0	10.096369	4.6449	40.0000	1.8709	40.0000	24.7778	.00186649	.00975891	0.
7500.0	4330.0	10.098608	4.1916	40.0000	1.8957	40.0000	25.8832	.00192327	.00969345	0.
8000.0	1.0	10.656162	4.2810	40.0000	2.0398	40.0000	26.0000	.00148146	.01045761	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 1 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (CONGESTED)

SIGNAL=1 SPEED=1[illegible].0, LANES= 2. 0. 3. 1., DISTANCES= 8.5, 8.5, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	56000.0	10.134319	85.4262	40.0000	1.2170	160.0000	8.0000	.03316649	.00492900	0.
1000.0	32700.0	10.170779	63.7511	40.0000	1.7620	112.5765	8.0000	.01964477	.00753620	0.
1500.0	25200.0	10.094660	41.9960	40.0000	1.7836	76.9874	8.0000	.01719163	.00779445	0.
2000.0	24000.0	10.108084	31.5037	40.0000	1.8202	59.5683	8.0000	.01491511	.00812087	0.
2500.0	20000.0	10.134247	25.2248	40.0000	1.8556	49.0667	8.0000	.01275634	.00843643	0.
3000.0	16100.0	10.128663	20.9303	40.0000	1.8815	41.8922	8.0000	.01065645	.00870746	0.
3500.0	8500.0	10.127382	19.0693	40.0000	2.0279	40.0000	8.6667	.00637817	.00941813	0.
4000.0	7700.0	10.108662	15.9749	40.0000	2.0769	40.0000	10.6752	.00610342	.00930611	0.
4500.0	7000.0	10.107424	13.6585	40.0000	2.1314	40.0000	12.6522	.00588754	.00920252	0.
5000.0	6400.0	10.101822	11.8291	40.0000	2.1846	40.0000	14.5439	.00573054	.00908207	0.
5500.0	5900.0	10.105017	10.3664	40.0000	2.2365	40.0000	16.2982	.00563242	.00896000	0.
6000.0	5500.0	10.143615	9.2113	40.0000	2.2907	40.0000	17.8696	.00559317	.00886707	0.
6500.0	5100.0	10.114859	8.1634	40.0000	2.3285	40.0000	19.4138	.00555392	.00869624	0.
7000.0	4800.0	10.165922	7.3687	40.0000	2.3762	40.0000	20.7288	.00557354	.00860593	0.
7500.0	4500.0	10.176897	6.6483	40.0000	2.4116	40.0000	22.0000	.00559317	.00846926	0.
8000.0	4200.0	10.152541	5.9944	40.0000	2.4348	40.0000	23.2295	.00561279	.00829171	0.
8500.0	3900.0	10.097255	5.4008	40.0000	2.4458	40.0000	24.4194	.00563242	.00807839	0.
9000.0	3700.0	10.153110	5.0009	40.0000	2.4816	40.0000	25.3465	.00571092	.00801653	0.
9500.0	1000.0	10.170420	4.7797	40.0000	2.5511	40.0000	26.0000	.00431753	.00813572	0.
10000.0	1.0	10.213393	4.9626	40.0000	2.7341	40.0000	26.0000	.00392562	.00881259	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

? LANE - 1 WAY MAIN STREET WITH 3 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

SIGNAL=1 SPEED=30.0, LANES= 2. 0. 2. 1., DISTANCES= 8.5, 8.5, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	119000.0	10.130959	85.4262	40.0000	1.2170	160.0000	8.0000	.03064524	.00550733	0.
1000.0	33500.0	10.179381	73.5035	40.0000	1.9807	124.0449	8.0000	.00948984	.00973538	0.
1500.0	25600.0	10.094203	44.1278	40.0000	1.8558	79.5007	8.0000	.00822144	.00982249	0.
2000.0	23600.0	10.112516	30.2917	40.0000	1.7653	58.1461	8.0000	.00692527	.01003488	0.
2500.0	19500.0	10.137889	22.2712	40.0000	1.6874	45.6198	8.0000	.00560132	.01026101	0.
3000.0	7400.0	10.109258	17.9692	40.0000	1.6958	40.0000	8.5385	.00261086	.01075672	0.
3500.0	6400.0	10.168288	14.3771	40.0000	1.7217	40.0000	11.1414	.00242570	.01079551	0.
4000.0	5600.0	10.184899	11.8083	40.0000	1.7552	40.0000	13.6667	.00229608	.01077210	0.
4500.0	4930.0	10.105019	9.7822	40.0000	1.7804	40.0000	16.0680	.00220257	.01062983	0.
5000.0	4500.0	10.143405	8.3969	40.0000	1.8232	40.0000	18.0526	.00217572	.01061100	0.
5500.0	4110.0	10.108332	7.2292	40.0000	1.8538	40.0000	19.8928	.00215998	.01050497	0.
6000.0	3800.0	10.098338	6.3229	40.0000	1.8857	40.0000	21.4898	.00216646	.01042350	0.
6500.0	3540.0	10.101490	5.5996	40.0000	1.9167	40.0000	22.8964	.00218683	.01035445	0.
7000.0	3310.0	10.105426	5.0059	40.0000	1.9451	40.0000	24.1581	.00221553	.01028464	0.
7500.0	3100.0	10.106137	4.5108	40.0000	1.9702	40.0000	25.3019	.00224979	.01020998	0.
8000.0	1.0	10.246404	4.2810	40.0000	2.0398	40.0000	26.0000	.00148162	.01045761	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

' LAYE - 1 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (CONGESTED)

'IGNAL=1 SPEED=15.0, LANES= 2. 0. 2. 2., DISTANCES= 8.5, 8.5, DIRECTIONAL SPLIT=1.00. .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	67300.0	10.111803	58.5706	40.0000	.8740	118.7522	8.0000	.02661170	.00348862	0.
1000.0	56700.0	10.117479	35.9239	40.0000	1.0929	74.9152	8.0000	.02264742	.00453713	0.
1500.0	49000.0	10.139996	27.2111	40.0000	1.2582	57.8010	8.0000	.01942889	.00538551	0.
2000.0	43100.0	10.113806	22.2213	40.0000	1.3858	47.9791	8.0000	.01652437	.00608655	0.
2500.0	38000.0	10.135108	19.1148	40.0000	1.5020	41.7128	8.0000	.01393385	.00674900	0.
3000.0	19000.0	10.105657	19.2597	40.0000	1.7681	40.0000	8.0000	.00863506	.00814998	0.
3500.0	15000.0	10.134147	16.7208	40.0000	1.8783	40.0000	9.7273	.00726130	.00846298	0.
4000.0	13600.0	10.121511	14.1485	40.0000	1.9398	40.0000	11.8148	.00690805	.00842958	0.
4500.0	12400.0	10.103094	12.1538	40.0000	2.0000	40.0000	13.8224	.00663330	.00836658	0.
5000.0	11500.0	10.149623	10.6596	40.0000	2.0667	40.0000	15.6047	.00647630	.00834240	0.
5500.0	10600.0	10.106094	9.3214	40.0000	2.1153	40.0000	17.3704	.00631930	.00821640	0.
6000.0	10000.0	10.188579	8.3658	40.0000	2.1789	40.0000	18.8182	.00628005	.00819627	0.
6500.0	9300.0	10.146011	7.4246	40.0000	2.2170	40.0000	20.3184	.00620155	.00805029	0.
7000.0	8700.0	10.128743	6.6525	40.0000	2.2538	40.0000	21.6696	.00616230	.00791938	0.
7500.0	8200.0	10.154283	6.0323	40.0000	2.2929	40.0000	22.8621	.00616230	.00782533	0.
8000.0	7700.0	10.152749	5.4740	40.0000	2.3219	40.0000	24.0042	.00616230	.00770067	0.
8500.0	7200.0	10.128052	4.9712	40.0000	2.3409	40.0000	25.0992	.00616230	.00754983	0.
9000.0	6000.0	10.115551	4.6056	40.0000	2.3746	40.0000	26.0000	.00588754	.00749351	0.
9500.0	1.0	10.231274	4.7797	40.0000	2.5511	40.0000	26.0000	.00372917	.00813572	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

' LANE - 1 WAY MAIN STREET WITH 4 LANE - 2 WAY CROSSING ST. (NON-CONGESTED)

'IGNAL=1 SPEED=30.0, LANES= 2. 0. 2. 2., DISTANCES= 8.5, 8.5, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	107000.0	10.096752	85.4262	40.0000	1.2170	160.0000	8.0000	.01990552	.00550733	0.
1000.0	63700.0	10.125600	55.7353	40.0000	1.5765	102.5070	8.0000	.01198035	.00781098	0.
1500.0	53100.0	10.109606	34.8465	40.0000	1.5351	68.1061	8.0000	.01011015	.00828452	0.
2000.0	43000.0	10.191525	25.0371	40.0000	1.5210	51.6693	8.0000	.00833254	.00884154	0.
2500.0	32500.0	10.104823	18.7698	40.0000	1.4814	41.2710	8.0000	.00648087	.00922969	0.
3000.0	13600.0	10.121169	16.5488	40.0000	1.6142	40.0000	9.2449	.00307378	.01019144	0.
3500.0	11700.0	10.129031	13.2513	40.0000	1.6437	40.0000	11.9733	.00281455	.01021853	0.
4000.0	10300.0	10.138521	10.9337	40.0000	1.6832	40.0000	14.4863	.00264790	.01022024	0.
4500.0	9200.0	10.106003	9.1577	40.0000	1.7194	40.0000	16.7802	.00253680	.01015813	0.
5000.0	8400.0	10.113228	7.8449	40.0000	1.7599	40.0000	18.7391	.00248125	.01012464	0.
5500.0	7800.0	10.161076	6.8553	40.0000	1.8038	40.0000	20.4043	.00246273	.01012618	0.
6000.0	7200.0	10.120884	5.9800	40.0000	1.8324	40.0000	22.0000	.00244421	.01002619	0.
6500.0	6700.0	10.102007	5.2874	40.0000	1.8609	40.0000	23.3959	.00244421	.00994886	0.
7000.0	6300.0	10.132584	4.7546	40.0000	1.8938	40.0000	24.5862	.00246273	.00992000	0.
7500.0	5900.0	10.124729	4.2861	40.0000	1.9180	40.0000	25.7081	.00248125	.00984769	0.
8000.0	1.0	10.455637	4.2810	40.0000	2.0398	40.0000	26.0000	.00148153	.01045761	******

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

LANE LIMITED ACCESS

ISIG= 4 (3 MEANS ARTERIAL, 4 MEANS XWAY); LANES= 4. 4.. ROAD - RECEPTOR DISTANCES = 17.0 34.0. DIRECTIONAL SPLIT= .600 .400

LANE CAPACITY	TOTAL ADT	CONCENTRATION	NEAR SPEED	FAR SPEED
600	67000.000	10.16277707	30.	34.
700	67000.000	10.12826300	30.	40.
800	67000.000	10.12401700	30.	42.
900	69000.000	10.09420979	32.	43.
1000	73200.000	10.11109829	35.	44.
1100	76300.000	10.09825301	37.	45.
1200	78000.000	10.18354380	39.	46.
1300	78100.000	10.10101247	41.	47.
1400	79000.000	10.18148100	42.	48.
1500	79000.000	10.16266739	43.	49.
1600	79000.000	10.15639603	44.	49.
1700	79000.000	10.15769577	45.	50.
1800	79000.000	10.18129659	46.	51.
1900	78200.000	10.10219705	47.	52.
2000	78000.000	10.09803879	47.	52.

* LANE LIMITED ACCESS

TSIG= 4 (3 MEANS ARTERIAL, 4 MEANS XWAY); LANES= 3. 3.. ROAD - RECEPTOR DISTANCES = 15.2 28.7, DIRECTIONAL SPLIT= .600 .400

LANE CAPACITY	TOTAL ADT	CONCENTRATION	NEAR SPEED	FAR SPEED
600	46600.000	10.10806715	30.	38.
700	47000.000	10.12629461	30.	41.
800	47000.000	10.09576082	30.	43.
900	50000.000	10.16516089	34.	44.
1000	52000.000	10.14533162	37.	45.
1100	52400.000	10.10114181	40.	46.
1200	53000.000	10.17840302	41.	47.
1300	53000.000	10.17025256	42.	48.
1400	53000.000	10.18118095	44.	49.
1500	53000.000	10.19045818	45.	50.
1600	52300.000	10.10332417	46.	51.
1700	52100.000	10.10040486	47.	52.
1800	52000.000	10.11837685	47.	52.
1900	52000.000	10.16476095	48.	53.
2000	51400.000	10.09678304	49.	53.

4 LANE LIMITED ACCESS

ISIG= 4 (3 MEANS ARTERIAL, 4 MEANS XWAY); LANES= 2. 2., ROAD - RECEPTOR DISTANCES = 13.5 23.5, DIRECTIONAL SPLIT= .600 .400

LANE CAPACITY	TOTAL ADT	CONCENTRATION	NEAR SPEED	FAR SPEED
600	41000.000	10.09409547	30.	30.
700	41100.000	10.10926628	30.	30.
800	42700.000	10.10829628	30.	36.
900	43100.000	10.11004746	30.	40.
1000	43200.000	10.10676432	30.	41.
1100	43200.000	10.09640515	30.	43.
1200	45100.000	10.10011768	33.	44.
1300	47000.000	10.18554389	35.	45.
1400	48000.000	10.17206526	38.	45.
1500	48100.000	10.10199821	39.	46.
1600	48300.000	10.10316956	41.	47.
1700	48400.000	10.11123121	41.	47.
1800	48400.000	10.11039054	42.	48.
1900	48300.000	10.09820127	44.	49.
2000	48300.000	10.10561144	45.	50.

4 LANE ARTERIAL

TSIG= 3 (3 MEANS ARTERIAL, 4 MEANS XWAY); LANES= 3. 3.. ROAD - RECEPTOR DISTANCES = 10.2 23.7. DIRECTIONAL SPLIT= .600 .400

LANE CAPACITY	TOTAL ADT	CONCENTRATION	NEAR SPEED	FAR SPEED
600	27700.000	10.10196102	21.	30.
700	30400.000	10.11459219	23.	30.
800	32800.000	10.15364349	25.	30.
900	34600.000	10.10697520	27.	30.
1000	36200.000	10.09691215	29.	30.
1100	37000.000	10.14067137	30.	30.
1200	37000.000	10.14067137	30.	30.
1300	37000.000	10.14067137	30.	30.
1400	37000.000	10.14067137	30.	30.
1500	37000.000	10.14067137	30.	30.
1600	37000.000	10.14067137	30.	30.
1700	37000.000	10.14067137	30.	30.
1800	37000.000	10.14067137	30.	30.
1900	37000.000	10.14067137	30.	30.
2000	37000.000	10.14067137	30.	30.

4 LANE ARTERIAL

ISIG= 3 (3 MEANS ARTERIAL, 4 MEANS XWAY); LANES= 2. 2.. ROAD - RECEPTOR DISTANCES = 8.5 18.5. DIRECTIONAL SPLIT= .600 .400

LANE CAPACITY	TOTAL ADT	CONCENTRATION	NEAR SPEED	FAR SPEED
600	20340.000	10.09402812	17.	30.
700	22010.000	10.10085928	19.	30.
800	24700.000	10.16145897	21.	30.
900	26500.000	10.13744438	22.	30.
1000	28100.000	10.09914720	24.	30.
1100	29600.000	10.14542830	26.	30.
1200	30800.000	10.12873888	27.	30.
1300	32000.000	10.18556235	29.	30.
1400	33000.000	10.18878096	30.	30.
1500	33000.000	10.17669463	30.	30.
1600	33000.000	10.17669463	30.	30.
1700	33000.000	10.17669463	30.	30.
1800	33000.000	10.17669463	30.	30.
1900	33000.000	10.17669463	30.	30.
2000	33000.000	10.17669463	30.	30.

' LANE ARTERIAL

!SIG= 3 (3 MEANS ARTERIAL, 4 MEANS XWAY); LANES= 1. 1.. ROAD - RECEPTOR DISTANCES = 6.7 13.2. DIRECTIONAL SPLIT= .600 .400

LANE CAPACITY	TOTAL ADT	CONCENTRATION	NEAR SPEED	FAR SPEED
600	14400.000	10.10760975	15.	19.
700	15200.000	10.15887177	15.	23.
800	15600.000	10.09360218	15.	27.
900	16000.000	10.16628003	15.	30.
1000	17150.000	10.10419846	16.	30.
1100	18330.000	10.10121727	18.	30.
1200	19500.000	10.19238031	19.	30.
1300	20500.000	10.11658919	20.	30.
1400	21500.000	10.14736497	21.	30.
1500	22400.000	10.12879109	22.	30.
1600	23300.000	10.16799462	23.	30.
1700	24100.000	10.15318251	24.	30.
1800	24900.000	10.18112290	25.	30.
1900	25500.000	10.11602914	26.	30.
2000	26100.000	10.10253203	27.	30.

? LANE - 2 WAY UNSIGNALIZED WITH 2 LANE - 2 WAY OR 1 WAY (CONGESTED)

SIGNAL=0 SPEED=1?.0, LANES= 1. 1. 1. 1., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	51800.0	10.139086	190.7944	40.0000	1.7645	3600.0000	.0000	.04105580	.01056872	0.
1000.0	42900.0	10.127930	107.5103	40.0000	1.9276	3600.0000	.0000	.03446175	.01224550	0.
1500.0	37400.0	10.117462	74.8916	40.0000	1.9920	3600.0000	.0000	.03053672	.01314437	0.
2000.0	33320.0	10.099997	56.9841	40.0000	2.0136	3600.0000	.0000	.02772640	.01370198	0.
2500.0	30040.0	10.098619	45.6879	40.0000	2.0170	3600.0000	.0000	.02554409	.01411234	0.
3000.0	27300.0	10.154206	38.1702	40.0000	2.0208	3600.0000	.0000	.02378567	.01452690	0.
3500.0	24840.0	10.106724	32.0089	40.0000	1.9679	3600.0000	.0000	.02224706	.01464567	0.
4000.0	22700.0	10.157139	27.7313	40.0000	1.9732	3600.0000	.0000	.02095965	.01491106	0.
4500.0	20700.0	10.133308	23.9901	40.0000	1.9336	3600.0000	.0000	.01978215	.01497752	0.
5000.0	19000.0	10.177266	21.1967	40.0000	1.9072	3600.0000	.0000	.01876164	.01515046	0.
5500.0	17120.0	10.097498	18.4299	40.0000	1.8452	3600.0000	.0000	.01775683	.01504080	0.
6000.0	15500.0	10.101448	16.3606	40.0000	1.8020	3600.0000	.0000	.01687762	.01508257	0.
6500.0	14000.0	10.152460	14.7224	40.0000	1.7685	3600.0000	.0000	.01609262	.01520258	0.
7000.0	12500.0	10.135327	13.1134	40.0000	1.7154	3600.0000	.0000	.01530761	.01516947	0.
7500.0	11100.0	10.168830	11.8324	40.0000	1.6736	3600.0000	.0000	.01460111	.01522721	0.
8000.0	9700.0	10.163461	10.6092	40.0000	1.6203	3600.0000	.0000	.01389460	.01519761	0.
8500.0	8300.0	10.134092	9.4705	40.0000	1.5597	3600.0000	.0000	.01318810	.01511408	0.
9000.0	7000.0	10.169551	8.5861	40.0000	1.5146	3600.0000	.0000	.01256009	.01515329	0.
9500.0	5600.0	10.118353	7.6253	40.0000	1.4464	3600.0000	.0000	.01185359	.01502071	0.
10000.0	4300.0	10.136430	6.8850	40.0000	1.3953	3600.0000	.0000	.01122558	.01502086	0.
10500.0	3000.0	10.152200	6.2106	40.0000	1.3431	3600.0000	.0000	.01059758	.01501583	0.
11000.0	1600.0	10.113268	5.5123	40.0000	1.2766	3600.0000	.0000	.00989107	.01491081	0.
11500.0	300.0	10.139463	4.9753	40.0000	1.2263	3600.0000	.0000	.00926307	.01492921	0.
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 2 WAY UNSIGNALIZED WITH 2 LANE - 2 WAY OR 1 WAY (NON-CONGESTED)

SIGNAL=0 SPEED=30.0, LANES= 1. 1. 1. 1., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	53220.0	10.114544	296.4727	40.0000	2.4611	3600.0000	.0000	.01989441	.01681175	0.
1000.0	43920.0	10.099709	146.6227	40.0000	2.4403	3600.0000	.0000	.01663546	.01762454	0.
1500.0	38200.0	10.128326	94.8647	40.0000	2.3844	3600.0000	.0000	.01470231	.01814779	0.
2000.0	33920.0	10.097480	67.6306	40.0000	2.2932	3600.0000	.0000	.01330244	.01838168	0.
2500.0	30500.0	10.178792	51.8825	40.0000	2.2208	3600.0000	.0000	.01222106	.01877368	0.
3000.0	27500.0	10.119382	40.2604	40.0000	2.1037	3600.0000	.0000	.01129523	.01880586	0.
3500.0	24900.0	10.170599	32.5059	40.0000	2.0110	3600.0000	.0000	.01051752	.01904245	0.
4000.0	22500.0	10.174770	26.3919	40.0000	1.9017	3600.0000	.0000	.00981388	.01915170	0.
4500.0	20200.0	10.113760	21.3092	40.0000	1.7712	3600.0000	.0000	.00914728	.01910367	0.
5000.0	18100.0	10.161404	17.6598	40.0000	1.6675	3600.0000	.0000	.00855474	.01927816	0.
5500.0	16000.0	10.148112	14.4408	40.0000	1.5447	3600.0000	.0000	.00796221	.01931572	0.
6000.0	13900.0	10.126728	11.7299	40.0000	1.4172	3600.0000	.0000	.00736967	.01933511	0.
6500.0	11800.0	10.128010	9.5095	40.0000	1.2938	3600.0000	.0000	.00677714	.01940542	0.
7000.0	9600.0	10.118308	7.5877	40.0000	1.1652	3600.0000	.0000	.00614757	.01946187	0.
7500.0	7300.0	10.128543	5.9916	40.0000	1.0404	3600.0000	.0000	.00548096	.01957393	0.
8000.0	4700.0	10.113095	4.5654	40.0000	.9067	3600.0000	.0000	.00470326	.01966072	0.
8500.0	2000.0	10.164575	3.4847	40.0000	.7915	3600.0000	.0000	.00388852	.01990872	0.
9000.0	1.0	10.435053	2.9572	40.0000	.7392	3600.0000	.0000	.00333339	.02057299	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 2 WAY UNSIGNALIZED WITH 4 LANE - 2 WAY MAJOR ST. (CONGESTED)

SIGNAL=0 SPEED=15.0, LANES= 1. 1. 2. 2., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	68000.0	10.095910	33.5182	40.0000	.5546	3600.0000	.0000	.03493276	.00217281	0.
1000.0	76400.0	10.111692	35.2367	40.0000	.8857	3600.0000	.0000	.03077223	.00452909	0.
1500.0	67600.0	10.100859	31.4280	40.0000	1.0745	3600.0000	.0000	.02771070	.00618367	0.
2000.0	60700.0	10.122302	27.8234	40.0000	1.2030	3600.0000	.0000	.02539494	.00747520	0.
2500.0	55000.0	10.168789	24.8408	40.0000	1.2980	3600.0000	.0000	.02355017	.00854790	0.
3000.0	50000.0	10.181573	22.1149	40.0000	1.3594	3600.0000	.0000	.02198016	.00938439	0.
3500.0	45400.0	10.118118	19.4641	40.0000	1.3849	3600.0000	.0000	.02056715	.00995787	0.
4000.0	41400.0	10.130593	17.5533	40.0000	1.4148	3600.0000	.0000	.01938964	.01056442	0.
4500.0	37700.0	10.128418	15.8555	40.0000	1.4310	3600.0000	.0000	.01832988	.01106927	0.
5000.0	34200.0	10.097218	14.2893	40.0000	1.4323	3600.0000	.0000	.01734863	.01146305	0.
5500.0	31000.0	10.104844	13.0392	40.0000	1.4362	3600.0000	.0000	.01648512	.01187530	0.
6000.0	28000.0	10.122914	11.9625	40.0000	1.4370	3600.0000	.0000	.01570011	.01226516	0.
6500.0	25100.0	10.120659	10.9527	40.0000	1.4287	3600.0000	.0000	.01495436	.01258644	0.
7000.0	22300.0	10.109360	10.0292	40.0000	1.4147	3600.0000	.0000	.01424785	.01286446	0.
7500.0	19600.0	10.097756	9.1994	40.0000	1.3974	3600.0000	.0000	.01358060	.01311887	0.
8000.0	17100.0	10.131812	8.5397	40.0000	1.3877	3600.0000	.0000	.01299185	.01343003	0.
8500.0	14500.0	10.097916	7.8147	40.0000	1.3606	3600.0000	.0000	.01236384	.01361143	0.
9000.0	12100.0	10.117743	7.2481	40.0000	1.3434	3600.0000	.0000	.01181434	.01386770	0.
9500.0	9700.0	10.118314	6.6986	40.0000	1.3203	3600.0000	.0000	.01126483	.01408069	0.
10000.0	7300.0	10.104620	6.1739	40.0000	1.2927	3600.0000	.0000	.01071533	.01426163	0.
10500.0	5000.0	10.113968	5.7250	40.0000	1.2689	3600.0000	.0000	.01020507	.01447142	0.
11000.0	2700.0	10.114269	5.2995	40.0000	1.2422	3600.0000	.0000	.00969482	.01466089	0.
11500.0	400.0	10.108480	4.8999	40.0000	1.2135	3600.0000	.0000	.00918457	.01483667	0.
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 2 WAY UNSIGNALIZED WITH 4 LANE - 2 WAY MAJOR ST. (NON-CONGESTED)

SIGNAL=0 SPEED=30.0, LANES= 1. 1. 2. 2., DISTANCES= 6.7,13.2, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	107700.0	10.098921	193.5451	40.0000	1.7831	3600.0000	.0000	.01938705	.01131714	0.
1000.0	85600.0	10.104171	104.4958	40.0000	1.8873	3600.0000	.0000	.01622068	.01312680	0.
1500.0	74400.0	10.157907	70.8332	40.0000	1.9108	3600.0000	.0000	.01433198	.01429916	0.
2000.0	66000.0	10.180115	52.2520	40.0000	1.8874	3600.0000	.0000	.01296173	.01509785	0.
2500.0	59000.0	10.098881	39.6653	40.0000	1.8155	3600.0000	.0000	.01185073	.01551269	0.
3000.0	53100.0	10.110597	31.5547	40.0000	1.7545	3600.0000	.0000	.01094341	.01601743	0.
3500.0	47800.0	10.097119	25.4363	40.0000	1.6775	3600.0000	.0000	.01014719	.01640066	0.
4000.0	43000.0	10.114637	20.8840	40.0000	1.6018	3600.0000	.0000	.00944355	.01679947	0.
4500.0	38500.0	10.126765	17.2505	40.0000	1.5195	3600.0000	.0000	.00879546	.01715371	0.
5000.0	34100.0	10.096374	14.1446	40.0000	1.4220	3600.0000	.0000	.00816589	.01740161	0.
5500.0	30000.0	10.135909	11.8156	40.0000	1.3398	3600.0000	.0000	.00759187	.01777418	0.
6000.0	26000.0	10.183635	9.8867	40.0000	1.2573	3600.0000	.0000	.00703637	.01815434	0.
6500.0	21500.0	10.093817	7.8871	40.0000	1.1374	3600.0000	.0000	.00638828	.01827951	0.
7000.0	17200.0	10.095625	6.4197	40.0000	1.0404	3600.0000	.0000	.00577723	.01858894	0.
7500.0	13000.0	10.151129	5.2851	40.0000	.9570	3600.0000	.0000	.00518469	.01900821	0.
8000.0	8000.0	10.104272	4.1244	40.0000	.8486	3600.0000	.0000	.00444402	.01928400	0.
8500.0	3000.0	10.121066	3.2578	40.0000	.7581	3600.0000	.0000	.00370335	.01970285	0.
9000.0	1.0	10.434889	2.9568	40.0000	.7392	3600.0000	.0000	.00333320	.02057262	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

4 LANE - 2 WAY UNSIGNALIZED WITH 4 LANE - 2 WAY MAJOR ST. (CONGESTED)

SIGNAL=0 SPEED=15.0, LANES= 2. 2. 2. 2., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	92200.0	10.094185	18.5469	40.0000	.2629	3600.0000	.0000	.03678502	.00068680	0.
1000.0	84000.0	10.150689	23.2946	40.0000	.4459	3600.0000	.0000	.03336274	.00162704	0.
1500.0	76600.0	10.103828	22.0311	40.0000	.5498	3600.0000	.0000	.03065448	.00233938	0.
2000.0	70700.0	10.118007	20.3377	40.0000	.6245	3600.0000	.0000	.02853496	.00293838	0.
2500.0	65600.0	10.117544	18.4331	40.0000	.6750	3600.0000	.0000	.02672945	.00341879	0.
3000.0	61100.0	10.109788	16.6363	40.0000	.7097	3600.0000	.0000	.02515943	.00381479	0.
3500.0	57100.0	10.111988	15.0821	40.0000	.7353	3600.0000	.0000	.02378567	.00416020	0.
4000.0	53400.0	10.095946	13.6346	40.0000	.7507	3600.0000	.0000	.02252967	.00444543	0.
4500.0	50100.0	10.116964	12.4896	40.0000	.7653	3600.0000	.0000	.02143066	.00472605	0.
5000.0	47000.0	10.129664	11.4410	40.0000	.7740	3600.0000	.0000	.02041015	.00497127	0.
5500.0	44000.0	10.115166	10.4261	40.0000	.7752	3600.0000	.0000	.01942889	.00517042	0.
6000.0	41200.0	10.115759	9.5599	40.0000	.7753	3600.0000	.0000	.01852614	.00536302	0.
6500.0	38500.0	10.107924	8.7608	40.0000	.7717	3600.0000	.0000	.01766263	.00553267	0.
7000.0	36000.0	10.128930	8.1037	40.0000	.7698	3600.0000	.0000	.01687762	.00571271	0.
7500.0	33500.0	10.122349	7.4493	40.0000	.7624	3600.0000	.0000	.01609262	.00585876	0.
8000.0	31000.0	10.094049	6.8141	40.0000	.7505	3600.0000	.0000	.01530761	.00597805	0.
8500.0	29000.0	10.192594	6.4595	40.0000	.7540	3600.0000	.0000	.01471886	.00619078	0.
9000.0	26400.0	10.102987	5.8188	40.0000	.7316	3600.0000	.0000	.01389460	.00624711	0.
9500.0	24200.0	10.115253	5.3938	40.0000	.7216	3600.0000	.0000	.01322735	.00637867	0.
10000.0	22000.0	10.117403	4.9881	40.0000	.7095	3600.0000	.0000	.01256009	.00649777	0.
10500.0	20000.0	10.163479	4.6726	40.0000	.7021	3600.0000	.0000	.01197134	.00664585	0.
11000.0	17600.0	10.101360	4.2445	40.0000	.6806	3600.0000	.0000	.01122558	.00671091	0.
11500.0	15500.0	10.111284	3.9367	40.0000	.6676	3600.0000	.0000	.01059758	.00682702	0.
12000.0	13300.0	10.094560	3.6230	40.0000	.6509	3600.0000	.0000	.00993032	.00692286	0.

MAIN ADT	CROSS ADT	CONCENTRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
12500.0	11200.0	10.099759	3.3560	40.0000	.6366	3600.0000	.0000	.00930232	.00703315	0.
13000.0	9100.0	10.103968	3.1078	40.0000	.6219	3600.0000	.0000	.00867431	.00714222	0.
13500.0	7000.0	10.108067	2.8778	40.0000	.6071	3600.0000	.0000	.00804631	.00725115	0.
14000.0	5000.0	10.133282	2.6822	40.0000	.5945	3600.0000	.0000	.00745755	.00737353	0.
14500.0	3000.0	10.158464	2.5000	40.0000	.5818	3600.0000	.0000	.00686880	.00749586	0.
15000.0	1000.0	10.184114	2.3307	40.0000	.5690	3600.0000	.0000	.00628005	.00761878	0.
15500.0	1.0	10.403748	2.3091	40.0000	.5773	3600.0000	.0000	.00608419	.00785486	******

4 LANE - 2 WAY UNSIGNALIZED WITH 4 LANE - 2 WAY MAJOR ST. (NON-CONGESTED)

SIGNAL=0 SPEED=30.0, LANES= 2. 2. 2. 2., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT= .50, .50, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	116200.0	10.131015	188.1833	40.0000	1.0730	3600.0000	.0000	.02160906	.00551546	0.
1000.0	99800.0	10.130714	102.7625	40.0000	1.1391	3600.0000	.0000	.01847973	.00647087	0.
1500.0	89000.0	10.140487	69.5686	40.0000	1.1511	3600.0000	.0000	.01657250	.00704832	0.
2000.0	80000.0	10.186387	51.8288	40.0000	1.1459	3600.0000	.0000	.01518375	.00750374	0.
2500.0	73300.0	10.125409	39.6207	40.0000	1.1110	3600.0000	.0000	.01403571	.00775039	0.
3000.0	67600.0	10.105554	31.4280	40.0000	1.0745	3600.0000	.0000	.01307284	.00798842	0.
3500.0	62600.0	10.123970	25.6062	40.0000	1.0384	3600.0000	.0000	.01223958	.00823208	0.
4000.0	58000.0	10.127758	21.0445	40.0000	.9958	3600.0000	.0000	.01148039	.00843400	0.
4500.0	53600.0	10.094140	17.2552	40.0000	.9439	3600.0000	.0000	.01075824	.00857798	0.
5000.0	49500.0	10.099999	14.3394	40.0000	.8957	3600.0000	.0000	.01009164	.00875280	0.
5500.0	45500.0	10.097687	11.8992	40.0000	.8440	3600.0000	.0000	.00944355	.00891163	0.
6000.0	41600.0	10.107560	9.8941	40.0000	.7926	3600.0000	.0000	.00881398	.00907954	0.
6500.0	38000.0	10.189255	8.4012	40.0000	.7513	3600.0000	.0000	.00823996	.00931814	0.
7000.0	34000.0	10.179957	6.8850	40.0000	.6943	3600.0000	.0000	.00759187	.00946836	0.
7500.0	29500.0	10.103010	5.4369	40.0000	.6255	3600.0000	.0000	.00685120	.00956489	0.
8000.0	25100.0	10.093277	4.3498	40.0000	.5674	3600.0000	.0000	.00612905	.00973629	0.
8500.0	21000.0	10.165435	3.5738	40.0000	.5225	3600.0000	.0000	.00546245	.00999480	0.
9000.0	16000.0	10.153611	2.7797	40.0000	.4651	3600.0000	.0000	.00462919	.01020120	0.
9500.0	11000.0	10.189557	2.1852	40.0000	.4166	3600.0000	.0000	.00379594	.01046646	0.
10000.0	5000.0	10.171932	1.6377	40.0000	.3630	3600.0000	.0000	.00277751	.01072502	0.
10500.0	1.0	10.282754	1.2187	40.0000	.3297	3600.0000	.0000	.00194445	.01108247	******

MAIN ADT | CROSS ADT | CONCEN-TRATION | DELAY TIME | QUEUE (METERS) | QUEUE (CARS) | CYCLE TIME | GREEN TIME | CRUISE EMISSION | QUEUE EMISSION | ERROR CHECK

2 LANE - 1 WAY UNSIGNALIZED WITH 2 LANE - 2 WAY OR 1 WAY (CONGESTED)

SIGNAL=0 SPEED=15.0, LANES= 2. 0. 1. 1., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	50000.0	10.187936	118.7069	40.0000	1.2578	3600.0000	.0000	.03944654	.00672046	0.
1000.0	41000.0	10.185809	65.4248	40.0000	1.3461	3600.0000	.0000	.03257774	.00775217	0.
1500.0	35320.0	10.097881	44.0483	40.0000	1.3555	3600.0000	.0000	.02831516	.00820481	0.
2000.0	31120.0	10.101345	32.9792	40.0000	1.3538	3600.0000	.0000	.02521439	.00857614	0.
2500.0	27700.0	10.108176	25.9483	40.0000	1.3381	3600.0000	.0000	.02272592	.00884352	0.
3000.0	24800.0	10.150546	21.1865	40.0000	1.3192	3600.0000	.0000	.02064565	.00908701	0.
3500.0	22200.0	10.153470	17.5295	40.0000	1.2871	3600.0000	.0000	.01880089	.00923494	0.
4000.0	19800.0	10.119764	14.6045	40.0000	1.2440	3600.0000	.0000	.01711313	.00930508	0.
4500.0	17600.0	10.117560	12.3611	40.0000	1.2027	3600.0000	.0000	.01558236	.00939035	0.
5000.0	15500.0	10.093702	10.4849	40.0000	1.1548	3600.0000	.0000	.01413010	.00943216	0.
5500.0	13600.0	10.160233	9.1124	40.0000	1.1200	3600.0000	.0000	.01283484	.00956944	0.
6000.0	11600.0	10.097183	7.7145	40.0000	1.0613	3600.0000	.0000	.01146108	.00954388	0.
6500.0	9800.0	10.150678	6.7206	40.0000	1.0209	3600.0000	.0000	.01024433	.00964946	0.
7000.0	8000.0	10.183341	5.8307	40.0000	.9757	3600.0000	.0000	.00902757	.00972662	0.
7500.0	6000.0	10.100936	4.8982	40.0000	.9102	3600.0000	.0000	.00765381	.00967466	0.
8000.0	4200.0	10.140568	4.2445	40.0000	.8645	3600.0000	.0000	.00643705	.00976133	0.
8500.0	2200.0	10.102161	3.5811	40.0000	.8055	3600.0000	.0000	.00506329	.00976938	0.
9000.0	200.0	10.093944	3.0343	40.0000	.7514	3600.0000	.0000	.00368953	.00981862	0.
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

2 LANE - 1 WAY UNSIGNALIZED WITH 2 LANE - 2 WAY OR 1 WAY (NON-CONGESTED)

SIGNAL=0 SPEED=30.0, LANES= 2. 0. 1. 1., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	51500.0	10.139009	175.3533	40.0000	1.6590	3600.0000	.0000	.01916485	.01034601	0.
1000.0	41950.0	10.109967	82.9889	40.0000	1.5943	3600.0000	.0000	.01572073	.01083059	0.
1500.0	35930.0	10.105616	50.9639	40.0000	1.5030	3600.0000	.0000	.01358390	.01111710	0.
2000.0	31320.0	10.101613	34.5202	40.0000	1.3981	3600.0000	.0000	.01196924	.01131151	0.
2500.0	27500.0	10.172202	24.8408	40.0000	1.2980	3600.0000	.0000	.01064714	.01155580	0.
3000.0	24000.0	10.154452	17.9461	40.0000	1.1760	3600.0000	.0000	.00944355	.01165858	0.
3500.0	20700.0	10.154504	13.0511	40.0000	1.0519	3600.0000	.0000	.00831403	.01177252	0.
4000.0	17400.0	10.148043	9.3591	40.0000	.9215	3600.0000	.0000	.00718450	.01187757	0.
4500.0	14000.0	10.176613	6.6006	40.0000	.7929	3600.0000	.0000	.00601795	.01203697	0.
5000.0	10000.0	10.141980	4.3062	40.0000	.6470	3600.0000	.0000	.00462919	.01214955	0.
5500.0	5000.0	10.107231	2.5404	40.0000	.4969	3600.0000	.0000	.00287010	.01232762	0.
6000.0	1.0	10.313349	1.5817	40.0000	.3954	3600.0000	.0000	.00111138	.01283419	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

? LANE - 1 WAY UNSIGNALIZED WITH 4 LANE - TWO WAY MAJOR ST. (CONGESTED)

SIGNAL=0 SPEED=15.0, LANES= 2. 0. 2. 2., DISTANCES= 8.5,18.5, DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	85000.0	10.109783	25.4671	40.0000	.4701	3600.0000	.0000	.03355900	.00174302	0.
1000.0	72300.0	10.104500	23.5874	40.0000	.6850	3600.0000	.0000	.02877046	.00328534	0.
1500.0	63100.0	10.112971	20.0365	40.0000	.7989	3600.0000	.0000	.02535569	.00435934	0.
2000.0	56000.0	10.189661	17.3282	40.0000	.8761	3600.0000	.0000	.02276517	.00523414	0.
2500.0	49600.0	10.097091	14.4733	40.0000	.9012	3600.0000	.0000	.02044940	.00578065	0.
3000.0	44300.0	10.118114	12.5758	40.0000	.9263	3600.0000	.0000	.01856539	.00632902	0.
3500.0	39500.0	10.118868	10.9603	40.0000	.9365	3600.0000	.0000	.01687762	.00678016	0.
4000.0	35100.0	10.116295	9.6077	40.0000	.9376	3600.0000	.0000	.01534686	.00717109	0.
4500.0	31000.0	10.110469	8.4595	40.0000	.9317	3600.0000	.0000	.01393385	.00751584	0.
5000.0	27200.0	10.126474	7.5185	40.0000	.9241	3600.0000	.0000	.01263959	.00784861	0.
5500.0	23500.0	10.113011	6.6565	40.0000	.9081	3600.0000	.0000	.01138258	.00812728	0.
6000.0	20000.0	10.118703	5.9355	40.0000	.8918	3600.0000	.0000	.01020507	.00840423	0.
6500.0	16600.0	10.120626	5.2979	40.0000	.8725	3600.0000	.0000	.00906682	.00866213	0.
7000.0	13200.0	10.097703	4.7061	40.0000	.8477	3600.0000	.0000	.00792856	.00888614	0.
7500.0	10000.0	10.115735	4.2282	40.0000	.8270	3600.0000	.0000	.00686880	.00913818	0.
8000.0	7000.0	10.174627	3.8427	40.0000	.8106	3600.0000	.0000	.00588754	.00941812	0.
8500.0	3500.0	10.093518	3.3688	40.0000	.7745	3600.0000	.0000	.00471003	.00957668	0.
9000.0	400.0	10.114349	3.0343	40.0000	.7514	3600.0000	.0000	.00368953	.00981862	0.
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

? LANE - 1 WAY UNSIGNALIZED WITH 4 LANE - TWO WAY MAJOR ST. (NON-CONGESTED)

SIGNAL=0 SPEED=30.0, LANES= 2. 0. 2. 2., DISTANCES= 8.5.18.5. DIRECTIONAL SPLIT=1.00, .00, .50, .50,

MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK
500.0	99800.0	10.134668	115.8405	40.0000	1.2367	3600.0000	.0000	.01857231	.00716902	0.
1000.0	81100.0	10.100914	58.7989	40.0000	1.2496	3600.0000	.0000	.01520226	.00824791	0.
1500.0	69200.0	10.112624	37.3846	40.0000	1.2094	3600.0000	.0000	.01309135	.00894236	0.
2000.0	60000.0	10.120922	25.8255	40.0000	1.1432	3600.0000	.0000	.01148039	.00945490	0.
2500.0	52100.0	10.095802	18.3995	40.0000	1.0569	3600.0000	.0000	.01011015	.00983651	0.
3000.0	45000.0	10.101447	13.4158	40.0000	.9667	3600.0000	.0000	.00888805	.01020756	0.
3500.0	39200.0	10.098134	9.7707	40.0000	.8685	3600.0000	.0000	.00772149	.01054669	0.
4000.0	31400.0	10.094958	7.0373	40.0000	.7661	3600.0000	.0000	.00655493	.01088601	0.
4500.0	24300.0	10.094439	4.9598	40.0000	.6617	3600.0000	.0000	.00533283	.01124865	0.
5000.0	17000.0	10.158102	3.4865	40.0000	.5681	3600.0000	.0000	.00407369	.01171197	0.
5500.0	8000.0	10.122815	2.2412	40.0000	.4611	3600.0000	.0000	.00249976	.01215192	0.
6000.0	1.0	10.313265	1.5815	40.0000	.3954	3600.0000	.0000	.00111119	.01283407	******
MAIN ADT	CROSS ADT	CONCEN-TRATION	DELAY TIME	QUEUE (METERS)	QUEUE (CARS)	CYCLE TIME	GREEN TIME	CRUISE EMISSION	QUEUE EMISSION	ERROR CHECK

NORMAL EXIT. EXECUTION TIME: 31207 MILLISECONDS.

@*RKPT PRINTS